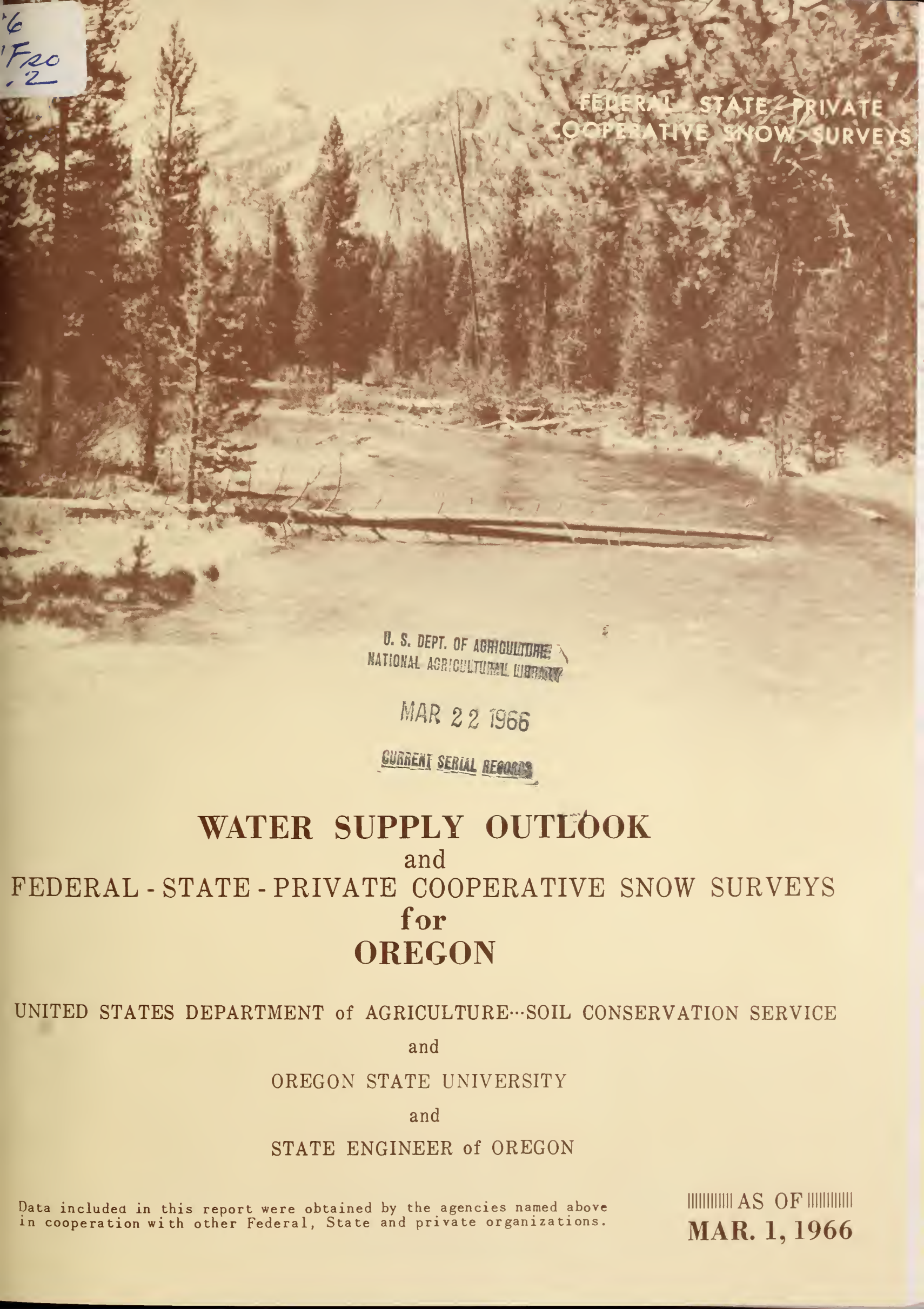


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



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FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

U. S. DEPT. OF AGRICULTURE
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MAR 22 1966

CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
OREGON

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE
and
OREGON STATE UNIVERSITY
and
STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above
in cooperation with other Federal, State and private organizations.

AS OF
MAR. 1, 1966

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Listed below are water supply outlook reports based on Federal-State-Private Cooperative snow surveys. Those published by the Soil Conservation Service may be obtained from Soil Conservation Service, Room 507, Federal Building, 701 N. W. Glisan, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
WESTERN UNITED STATES	MONTHLY (FEB.-MAY)	PORTLAND, OREGON	ALL COOPERATORS
BASIC DATA SUMMARY	OCTOBER 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (JAN.-JUNE)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
MONTANA	MONTHLY (JAN.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	WATER RESOURCES SERVICE, DEPT. OF LANDS, FOREST AND WATER RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
OREGON

ISSUED
MARCH 8, 1966

Report prepared by
W. T. FROST, Snow Survey Supervisor
and
BOB L. WHALEY, Assistant Snow Survey Supervisor
SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

Issued by
A. J. WEBBER
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE

G. BURTON WOOD
DIRECTOR
OREGON AGRICULTURAL
EXPERIMENT STATION

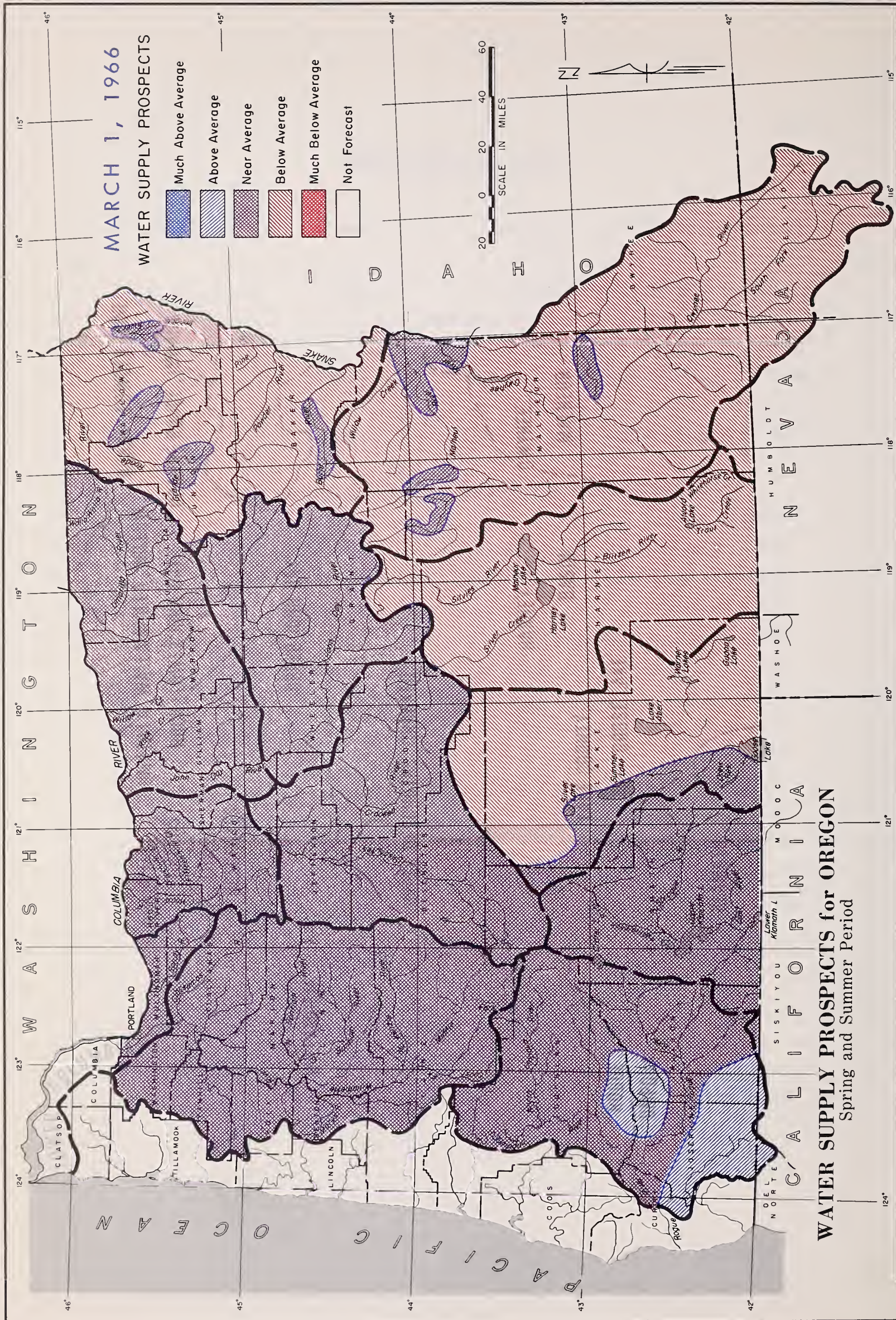
CHRIS L. WHEELER
STATE ENGINEER
STATE OF OREGON

TABLE OF CONTENTS

	PAGE
WATER SUPPLY PROSPECTS FOR OREGON.....(MAP).....	FACING PAGE 1
WATER SUPPLY OUTLOOK FOR OREGON.....	1
STORAGE STATUS OF OREGON RESERVOIRS.....(MAP).....	3
SNOW WATER ACCUMULATION - OREGON CASCADES.....	4
SNOW WATER ACCUMULATION - EASTERN OREGON.....	5
MOUNTAIN SOIL MOISTURE IN OREGON.....(MAP).....	6
VALLEY PRECIPITATION IN OREGON.....(MAP AND TABLE).....	7
CURRENT OREGON STREAMFLOW.....(GRAPH).....	8

DETAILED WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

OWYHEE, MALHEUR.....	AREA 1
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA.....	AREA 2
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY.....	AREA 3
UPPER JOHN DAY.....	AREA 4
UPPER DESCHUTES, CROOKED.....	AREA 5
HOOD, MILE CREEKS, LOWER DESCHUTES.....	AREA 6
LOWER COLUMBIA.....	AREA 7
WILLAMETTE.....	AREA 8
ROGUE, UMPQUA.....	AREA 9
KLAMATH.....	AREA 10
LAKE COUNTY, GOOSE LAKE.....	AREA 11
HARNEY BASIN.....	AREA 12
MAP AND INDEX OF OREGON SNOW COURSES.....(MAP)	
LIST OF COOPERATORS.....INSIDE BACK COVER	



WATER SUPPLY PROSPECTS for OREGON
 Spring and Summer Period

WATER SUPPLY OUTLOOK for OREGON

MARCH 1, 1966

The outlook for spring and summer water supplies in Oregon varies from "very good" in the western half of the state to "poor" in scattered areas of Malheur, Harney, and Lake Counties. However, stored water will "save the day" for many eastern Oregon irrigators.

SNOW COVER

Water content of the mountain snowpack increased only slightly because of a nearly dry February and has held at about 110 to 120 percent of the 15-year (1948-62) average in western Oregon and the counties bordering the Columbia River. Elsewhere the snow diminishes in the northeast and southeast sectors to about 70 to 80 percent average.

SOIL MOISTURE

Moisture in the soil mantle under the snowpack remains much poorer than last year but is close to average except in Baker, Grant, Harney and Lake Counties where it ranges between lows of 61 to 70 percent of capacity. A minimum of 2 to 5 inches of snowmelt water will be absorbed by these drier soils during early runoff.

RESERVOIR STORAGE

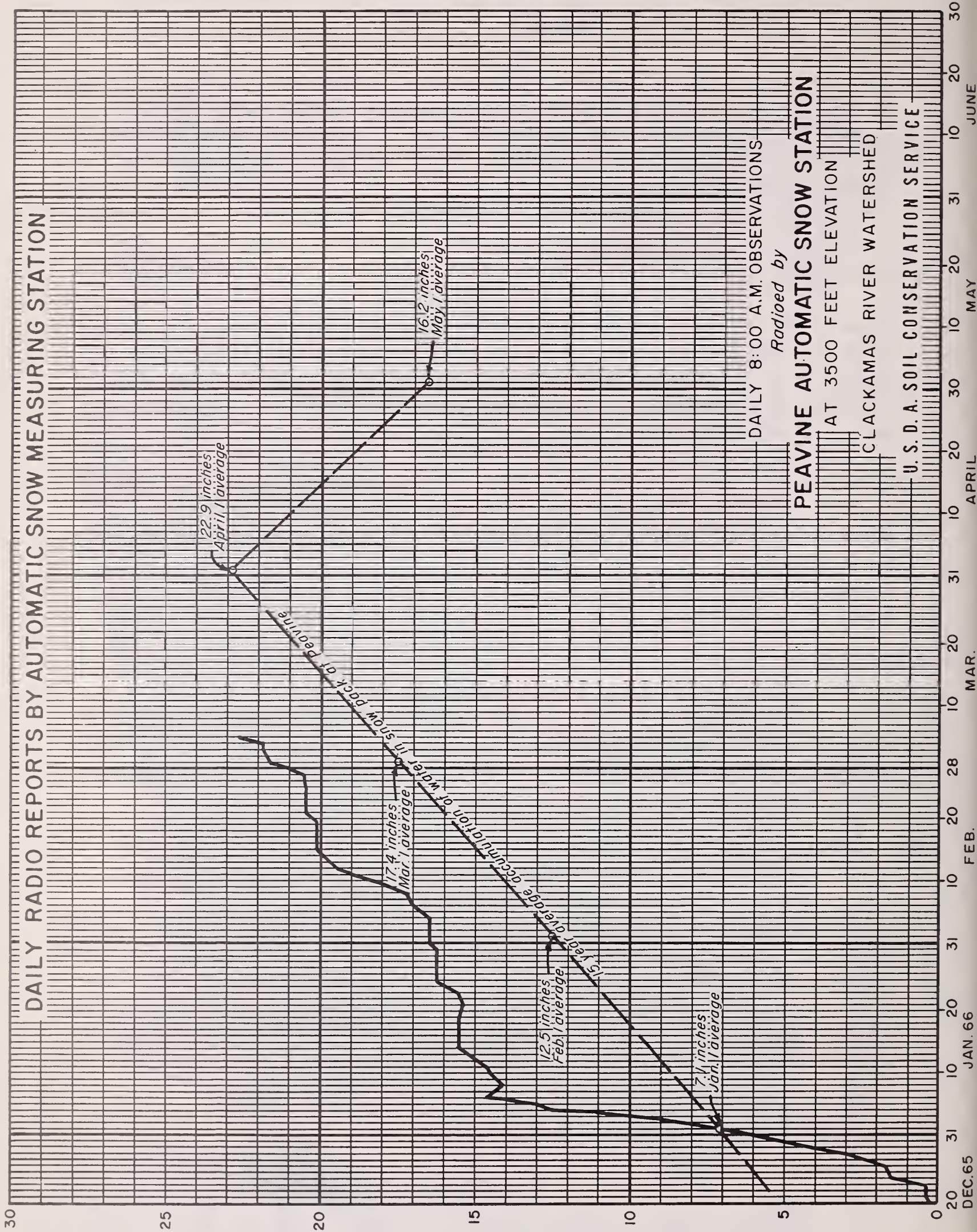
Water stored in 26 Oregon reservoirs used primarily for irrigation totals 112 percent of the 15-year average (1948-62) and 81 percent of last year on March first. These reservoirs are now holding 65 percent of their capacity, whereas last year, following the floods, the same reservoirs held 80 percent of their capacity.

STREAMFLOW

Flow of Oregon streams next spring and summer (April through September) is forecast to range downward from slightly above average on the west slope of the Cascade Mountains to about 80 to 90 percent average in the Klamath, Goose Lake, Deschutes, Crooked, Hood, Umatilla and Walla Walla watersheds and on down to 60 to 70 percent on the Grande Ronde, Powder, Burnt, John Day, Silvies, Blitzen and the Warner Valley streams. Lowest forecasts in the state are 47 to 51 percent of average on the Owyhee and Malheur Rivers.

Fortunately, stored water supplies are adequate in most areas where expected streamflow will be much below average.

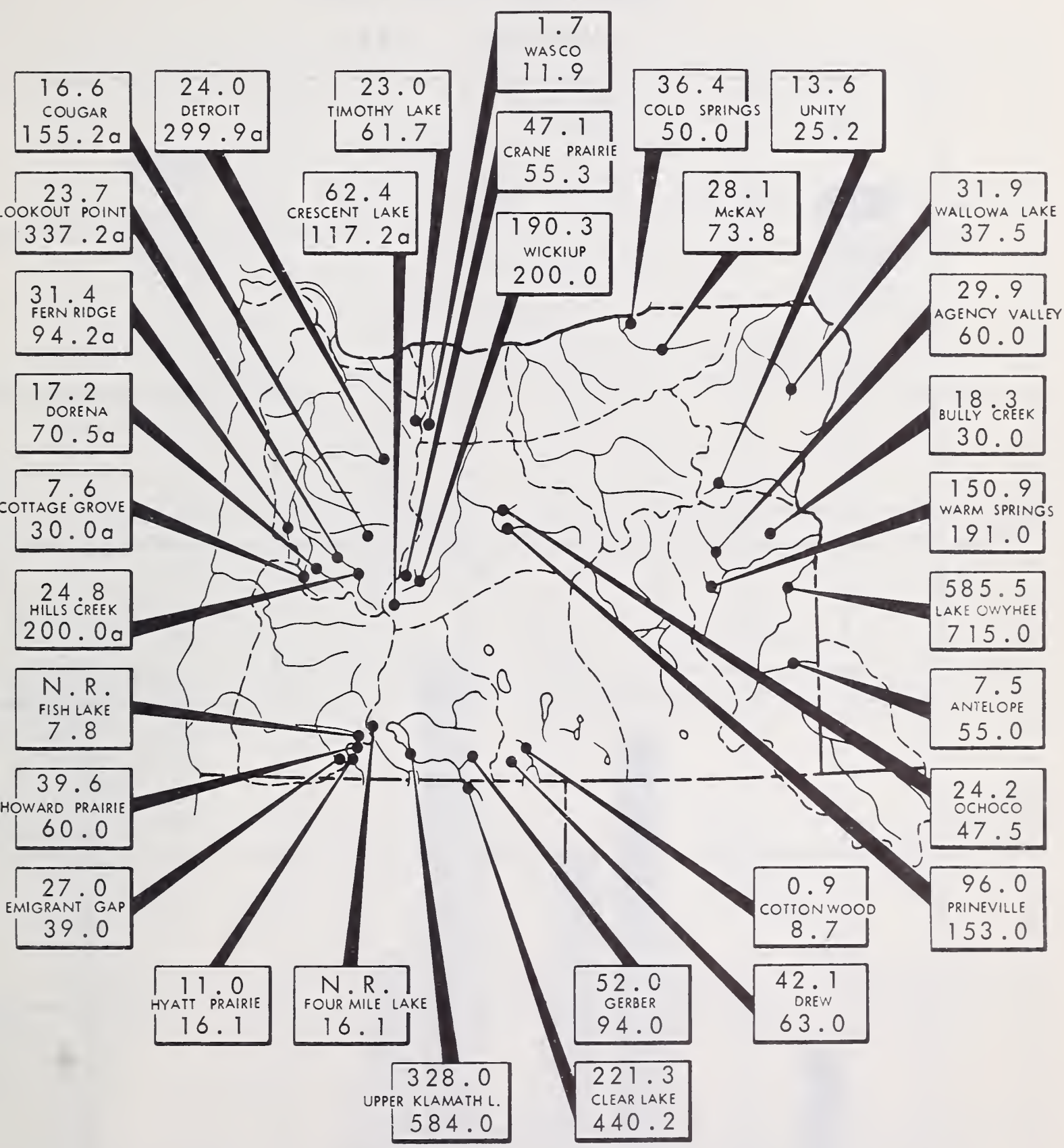




STORAGE STATUS of OREGON RESERVOIRS

usable contents in thousands of acre feet

MARCH 1, 1966



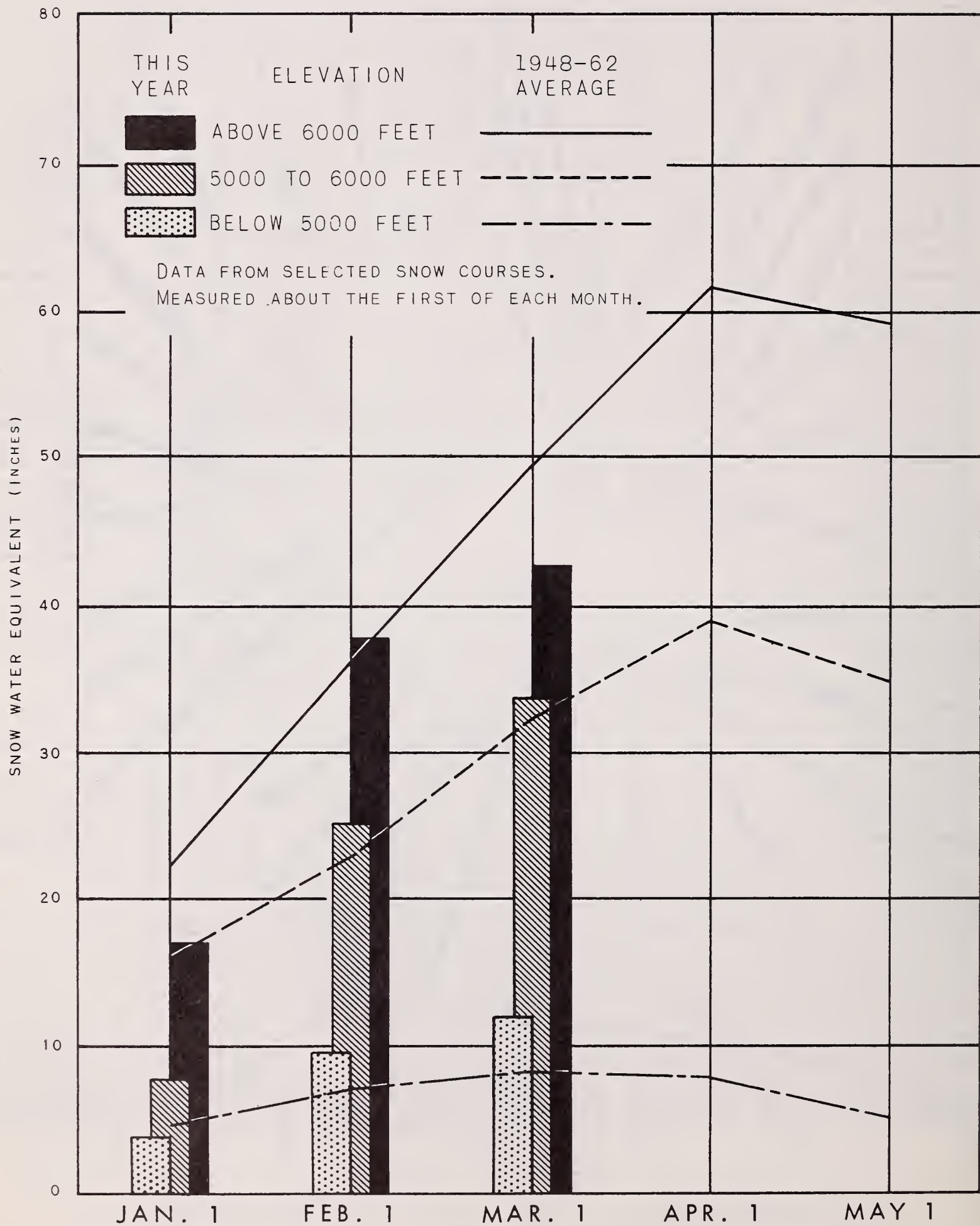
EXPLANATION

687.0 ---Contents
LAKE OWYHEE
715.0 ---Capacity

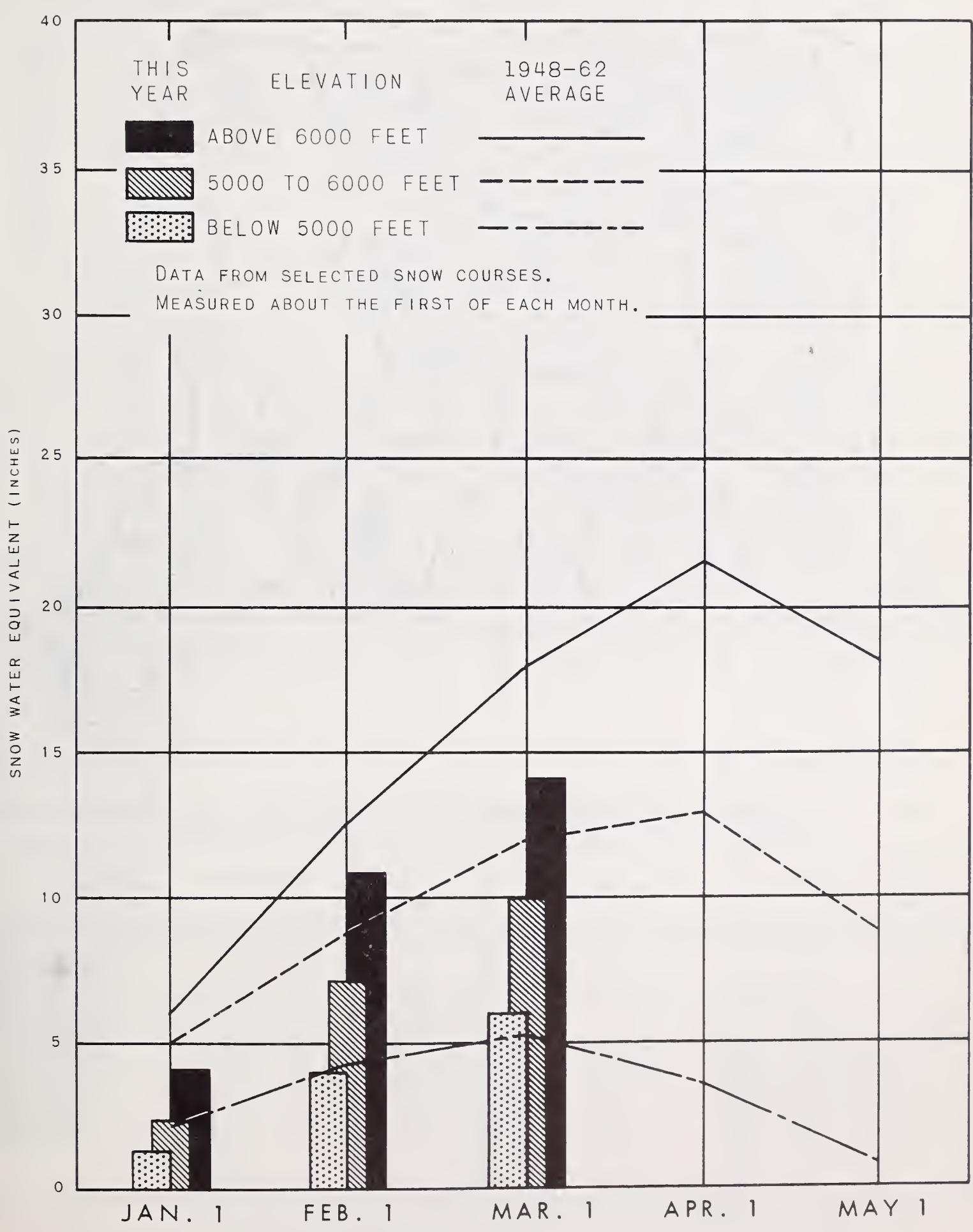
(a) Multiple purpose reservoir - space reserved for flood runoff.
N. R. - No report.

SNOW WATER ACCUMULATION IN OREGON CASCADES

MARCH 1, 1966

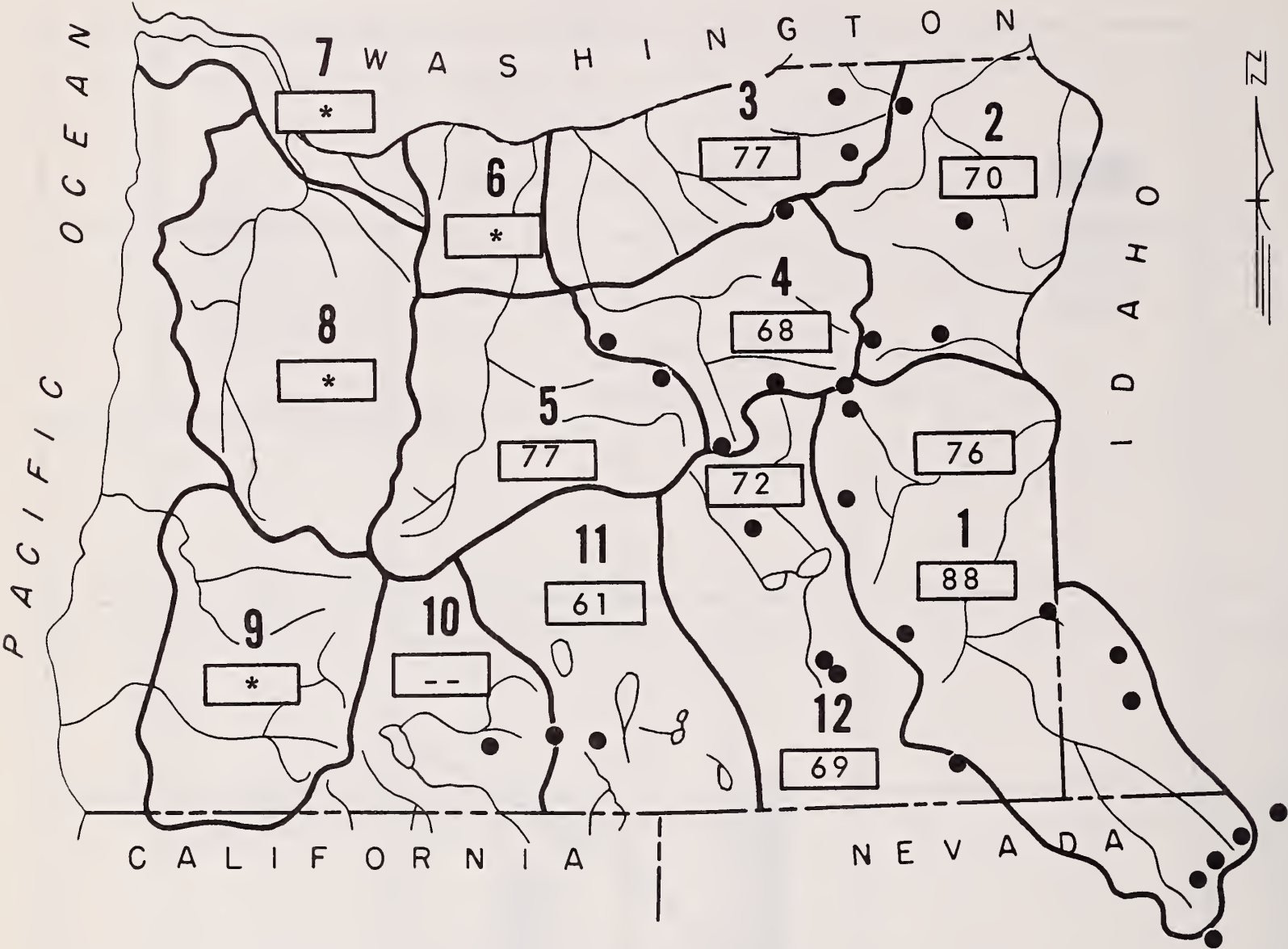


SNOW WATER ACCUMULATION IN EASTERN OREGON MARCH 1, 1966



MOUNTAIN SOIL MOISTURE in OREGON as percent of capacity

MARCH 1, 1966

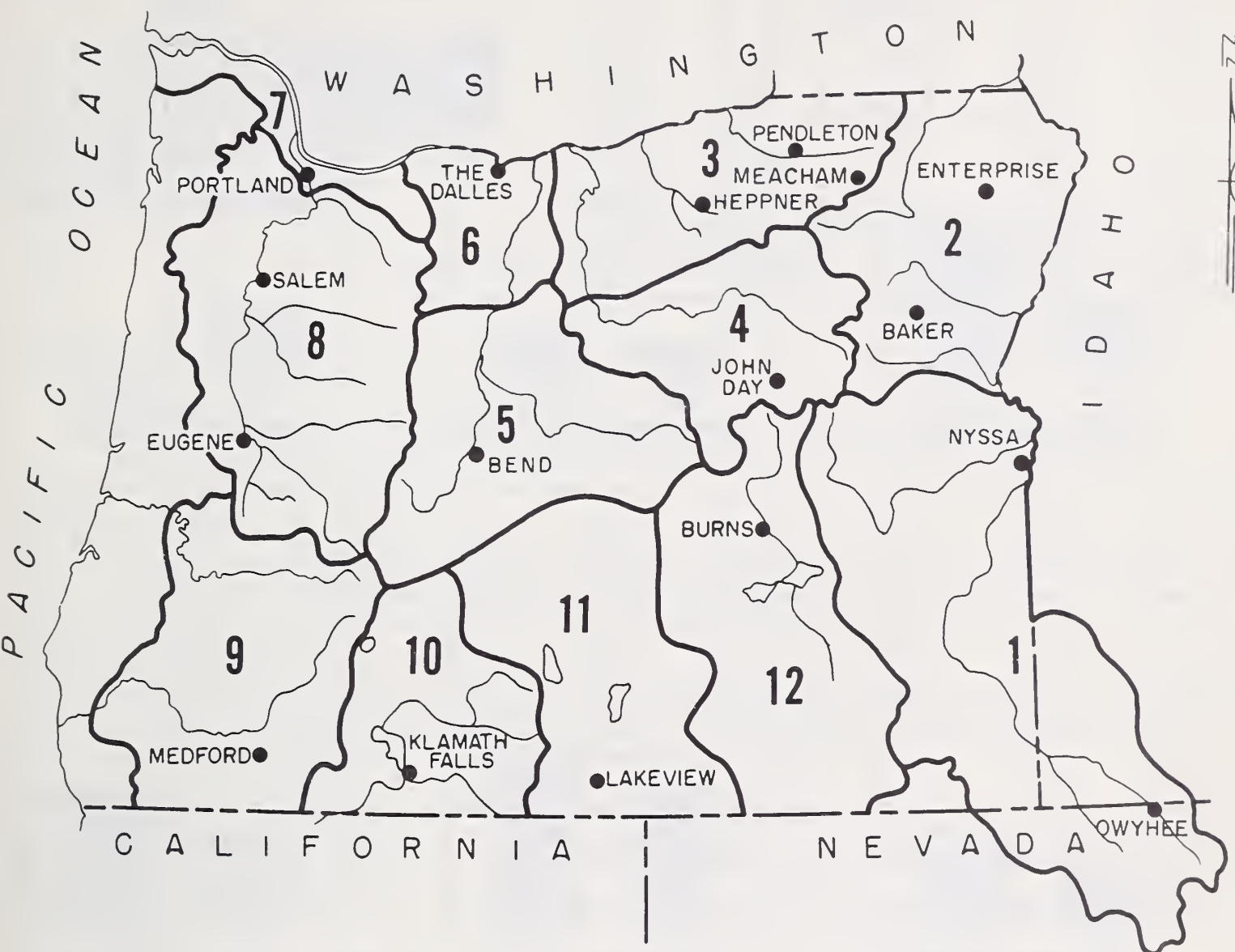


● Soil Moisture Station

*Moisture studies not yet developed in these areas.

VALLEY PRECIPITATION in OREGON ^a

MARCH 1, 1966

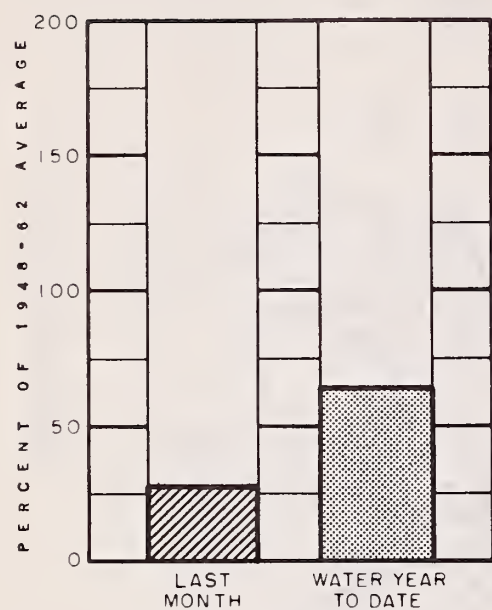


PRECIPITATION as PERCENT of the 1948-62 AVERAGE					
STATION	LAST MONTH	WATER YEAR ^b TO DATE	STATION	LAST MONTH	WATER YEAR ^b TO DATE
BAKER APT.	151	72	LAKEVIEW	52	78
BEND	16	92	MEACHAM	87	65
BURNS	58	66	MEDFORD APT.	14	85
ENTERPRISE	101	53	NYSSA	38	66
EUGENE APT.	30	99	PENDLETON APT.	69	79
HEPPNER	42	63	PORTLAND APT.	35	94
JOHN DAY	61	58	SALEM APT.	37	87
KLAMATH FALLS APT.	36	76	THE DALLES	24	69
			OWYHEE (NEV.)	93	92

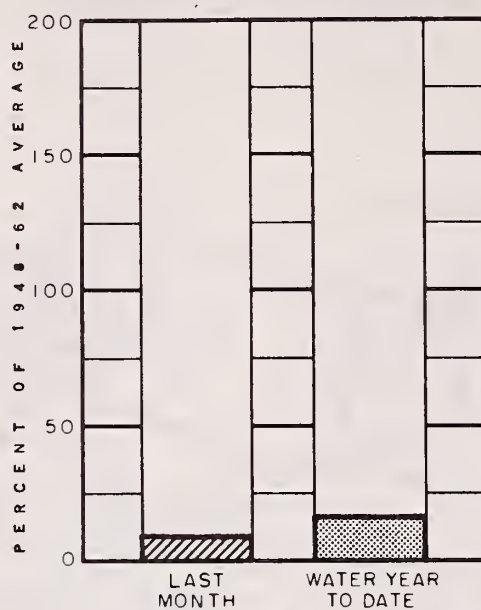
(a) Preliminary data furnished by the U.S. Weather Bureau. (b) Oct. 1 to date. (c) Report delayed.

CURRENT OREGON STREAMFLOW

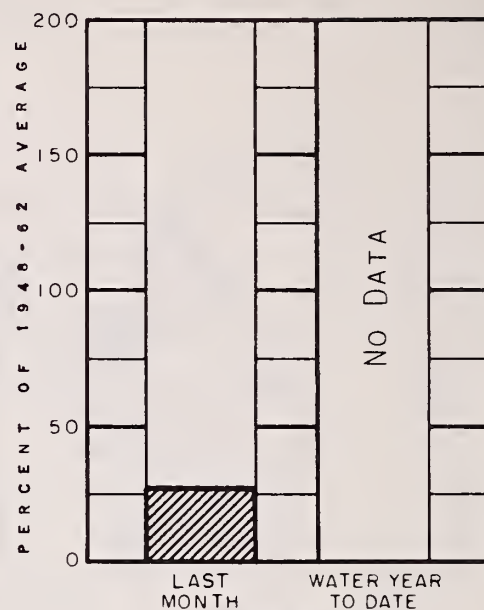
MARCH 1, 1966



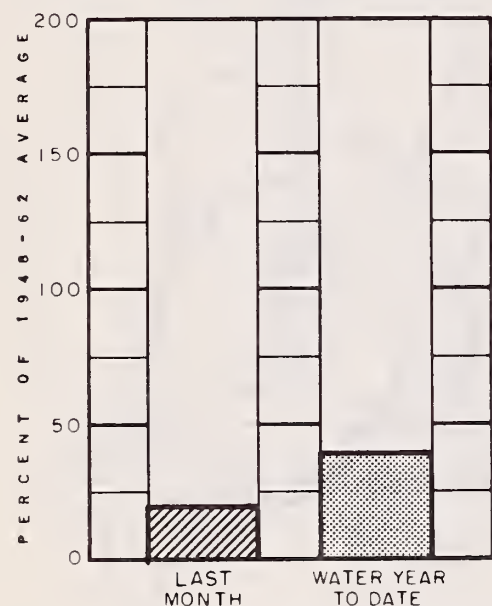
Owyhee Lake net inflow



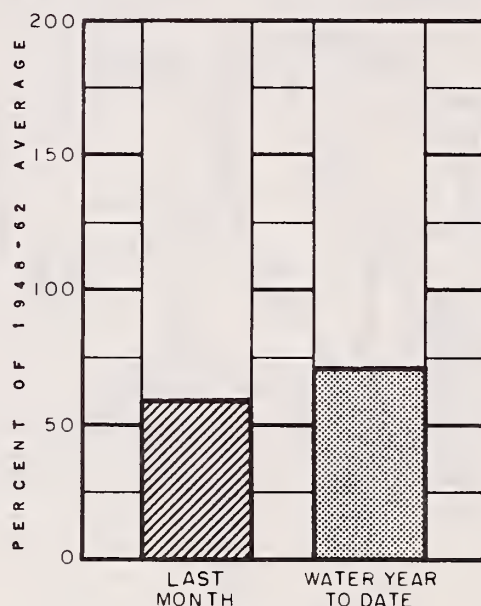
Grande Ronde at La Grande



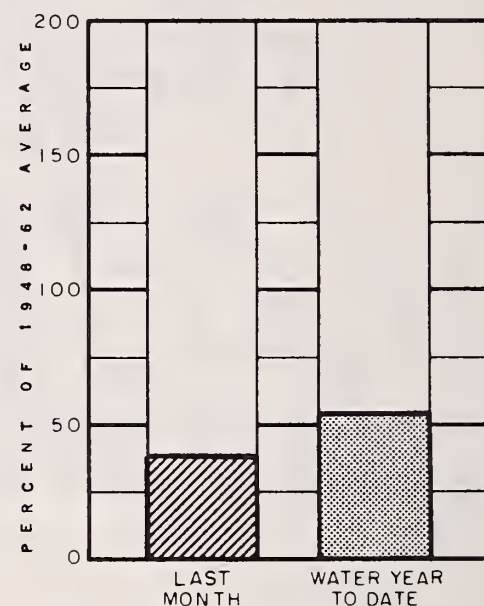
Umatilla at Pendleton



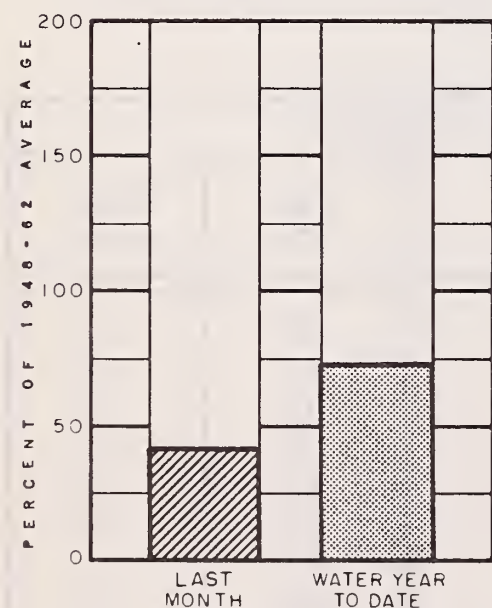
John Day at Service Creek



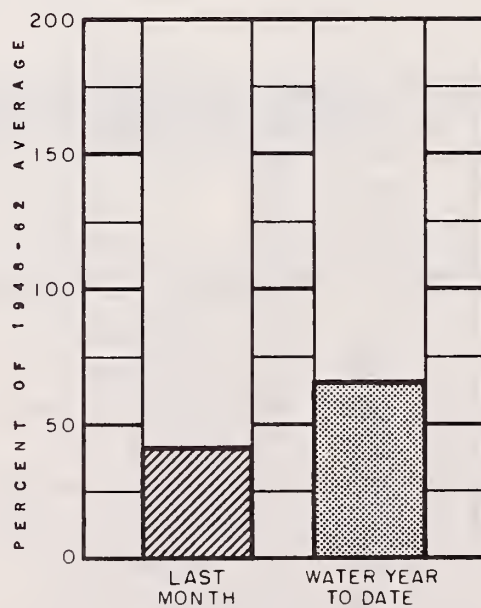
Deschutes at Moody



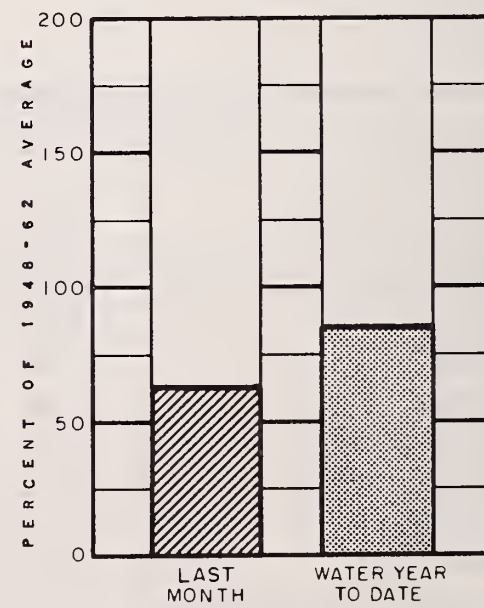
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



Rogue at Raygold



Upper Klamath Lake net inflow

Data furnished by U.S. Geological Survey; The Pacific Power and Light Co.;
and North and South Boards of Control Owyhee Project.

WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Outlook for spring and summer water supplies in Malheur County continues very dim for irrigators without stored water. Stored water supplies are generally good but lands served directly from streamflow can expect about half the usual water.

SNOW COVER

Water content of the mountain snowpack is about 75 percent of the 15-year average (1948-62) on the Owyhee and 72 percent on the Malheur. Total snow cover is only two-thirds to three-fourths that of last year.

SOIL MOISTURE

Moisture in watershed soils under the snowpack is now about 88 percent of capacity on the Owyhee and 76 percent on the Malheur. Some of the soil mantle is still frozen under the snowpack.

RESERVOIR STORAGE

Owyhee Reservoir now holds 585,500 acre feet compared with 410,400 acre feet average on March 1. A year ago this reservoir held 624,200 acre feet.

Warm Springs now contains 150,900 acre feet compared with 70,900 acre feet average and 163,400 acre feet last year. Agency Valley holds 29,900 acre feet, about average for this date, but less than the 46,200 acre feet of a year ago. Counting the 18,300 acre feet now stored in Bully Creek Reservoir, there is a total of 199,000 acre feet of stored water available to the Warm Springs and Vale, Oregon Irrigation Districts.

Antelope Reservoir has about 7,500 acre feet in storage compared with 31,600 acre feet last year. Low streamflow and ice in the feed canal have prevented an increase in the water stored for Jordan Valley Irrigation District.

STREAMFLOW

Forecasts of expected streamflow between now and the end of July are all about half of the 15-year average. Stored water supplies will "save the day" for irrigators served from the Owyhee, Warm Springs, Agency Valley and Bully Creek Reservoirs.

Flow of the Owyhee is forecast at 56 percent average March through July. Similarly the flow of the Malheur is forecast at 47 percent near Drewsey and 51 percent at Beulah. Jordan Creek is forecast at 47 percent.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair", "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Boulder Creek	Fair	Poor
Bully Creek	Fair	Poor
Cow Creek	Fair	Poor
Jordan Creek	Fair	Poor
Jordan Valley Irrig. Dist.	Average	Fair
McDermitt Creek	Fair	Poor
Oregon Canyon Creek	Fair	Poor
Owyhee Project	Average	Average
Succor Creek	Fair	Poor
Tenmile Creek	Fair	Poor
Vale-Oregon Irrig. Dist.	Average	Average
Warm Springs Irrig. Dist.	Average	Average
Willow Creek (Reservoired)	Average	Fair

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Agency Valley	60.0	29.9	46.2	29.3
Antelope	55.0	7.5	31.6	9.8
Bully Creek	30.0	18.3	21.4	- -
Owyhee	715.0	585.5	624.2	410.4
Warm Springs	191.0	150.9	163.4	70.9

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
1780	Jordan Creek above Lone Tree Creek	55	March-July	116	47
2140	Malheur near Drewsey	50	March-July	106	47
		37	April-Sept.	82	45
2175	Malheur, North Fork at Beulah ^d	37	March-July	72	51
		32	April-Sept.	65	49
1825	Owyhee Reservoir net Inflow ^k	260	March-July	466	56
		195	April-Sept.	381	51

SOIL MOISTURE

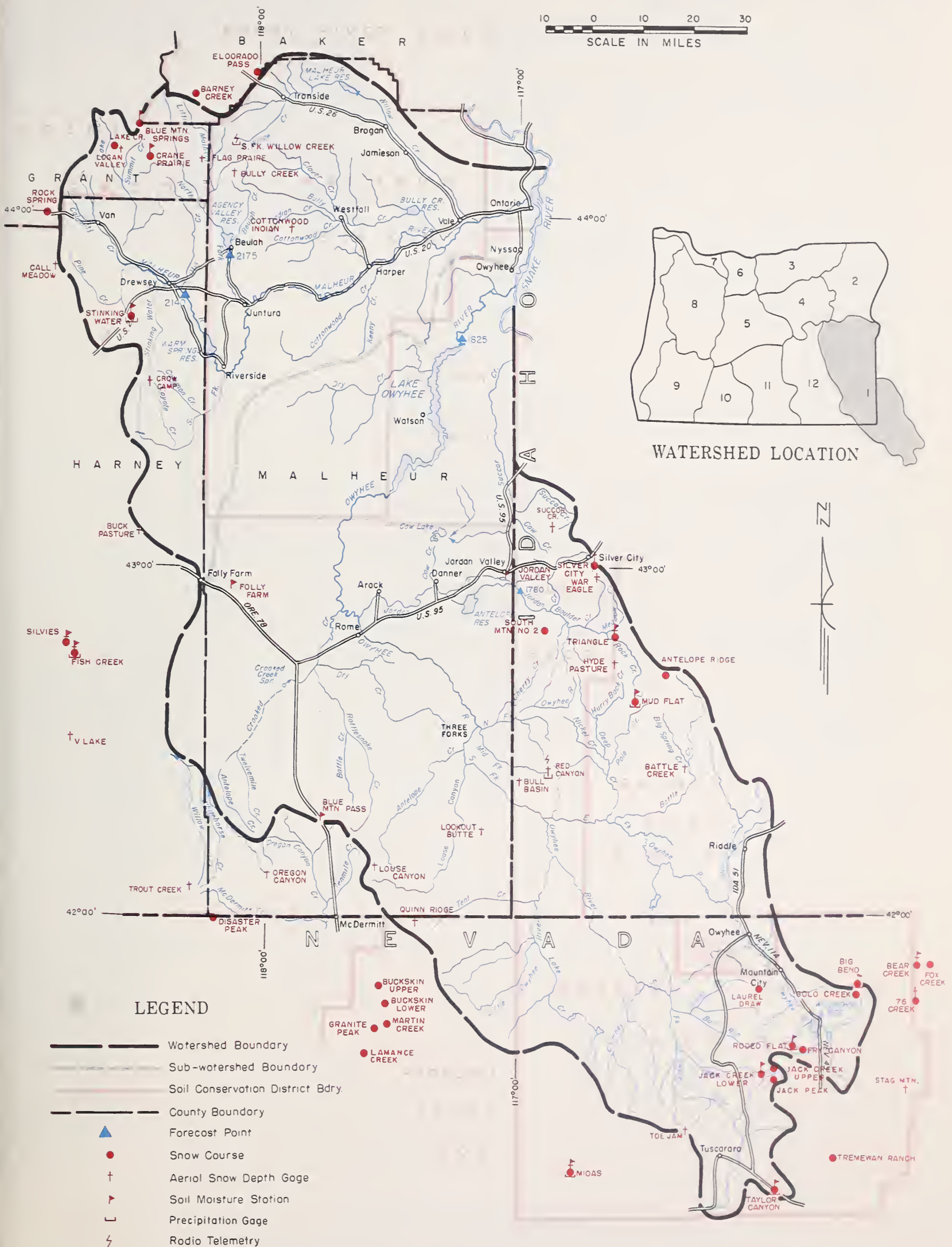
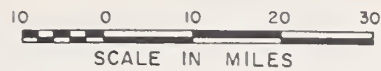
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
	NAME	ELEVATION					
Bear Creek (Nev.)	7800	72	16.8	2-24-66	14.7 ^j	13.7	9.9
Big Bend (Nev.)	6700	48	16.7	2-24-66	15.1	16.5	15.7
Blue Mountain Springs	5900	42	16.9	2-28-66	7.0	12.6	7.4
Crane Prairie	5375	48	18.2	2-25-66	14.9	17.6	14.7
Folly Farm	4450	30	12.5	c			
Jack Creek, Lower (Nev.)	6800	48	8.6	c			
Jordan Valley	4390	48	19.3	c			
Mud Flat (Ida.)	5500	48	12.8	2-24-66	10.6 ^j	13.8	11.5
Rodeo Flat (Nev.)	6800	42	11.0	2-24-66	10.6	11.0	10.2
Stinking Water Summit	4800	48	21.9	2-24-66	21.4	- -	- - ^f
Taylor Canyon (Nev.)	6200	48	15.1	2-24-66	12.4	15.0	12.6 ^f
Triangle (Ida.)	5150	48	16.6	c			

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Antelope Ridge (Ida.)	5900	2/24	16	3.7	4.1	- -
Barney Creek	5950	2/28	29	7.9	13.3	7.5
Battle Creek ^e (Ida.)	5700	3/1	10	2.4	1.9	3.6 ^h
Bear Creek (Nev.)	7800	2/24	40	11.9	24.5	16.6 ^h
Big Bend (Nev.)	6700	2/24	23	5.5	7.4	8.5
Blue Mountain Springs	5900	2/28	33	9.6	21.9	15.8
Buck Pasture ^e	5700	3/2	9	2.7 ^j	0.0	- -
Buckskin, Lower (Nev.)	6700	2/23	24	6.3	7.3	8.5
Buckskin, Upper (Nev.)	7200	2/23	31	9.2	8.4	7.9 ^h
Bull Basin ^e (Ida.)	5600	3/1	9	2.2	T	- -
Bully Creek ^e	5300	3/2	6	1.6 ^j	1.4	3.7 ^m
Call Meadow ^e	5340	3/2	13	3.4 ^j	1.4	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS



SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Columbia Basin ^e (Nev.)	6650	3/1	21	5.2	6.3	- -
Cottonwood-Indian ^e	4320	3/2	1	0.3	0.0	1.2 ^m
Crane Prairie	5375	2/25	27	7.1	12.1	9.4
Crow Camp ^e	5500	3/2	4	1.0 ^j	0.0	- -
Disaster Peak (Nev.)	6500	2/28	33	10.5	12.3	14.6 ^h
Eldorado Pass	4600	2/25	15	3.6	1.8	3.0 ^h
Fawn Creek ^e (Nev.)	7000	3/1	16	3.8	0.3	- -
Fish Creek	7900	2/23	48	14.8	33.0	- -
Flag Prairie ^e	4750	3/2	12	3.1 ^j	5.0	- -
Fox Creek (Nev.)	6800	2/24	31	8.5	11.8	9.4 ^h
Fry Canyon (Nev.)	6700	2/24	25	6.5	5.4	7.8
Gold Creek (Nev.)	6600	2/24	14	3.1	4.5	6.1 ^h
Granite Peak (Nev.)	7800	2/23	22	6.7	18.9	10.9
Hyde Pasture ^e (Ida.)	5800	3/1	12	2.9	3.4	4.9 ^h
Jack Creek, Lower (Nev.)	6800	c				
Jack Creek, Upper ^e (Nev.)	7250	3/1	21	5.5	6.8	9.5 ^h
Jacks Peak (Nev.)	8420	c				
Lake Creek	5120	2/25	23	6.1	12.8	10.5
Laurel Draw (Nev.)	6700	2/24	26	6.2	6.4	7.9 ^h
Logan Valley ^e	5100	3/2	19	4.9 ^j	10.8	- -
Lookout Butte ^e	5650	3/1	2	0.5	0.0	- -
Louse Canyon ^e	6440	3/2	21	6.1 ^j	0.9	- -
Martin Creek (Nev.)	6700	2/23	24	6.3	10.4	8.9
Merritt Mountain ^e (Nev.)	7000	3/1	T	T	1.2	- -
Midas ^e (Nev.)	7200	3/1	T	T	T	4.2 ^h
Mud Flat (Ida.)	5500	2/24	19	4.4	6.0	4.7 ^h
Oregon Canyon ^e	6950	3/2	13	3.8 ^j	3.7	- -
Quinn Ridge ^e (Nev.)	6300	3/2	17	4.9	0.0	- -
Red Canyon ^e (Ida.)	6500	3/1	27	6.5	5.3	- -
Rock Spring	5100	2/28	20	5.1	5.7	5.6
Rodeo Flat (Nev.)	6800	2/24	20	5.0	4.2	7.3
76 Creek ^e (Nev.)	7100	3/1	21	5.9	9.9	11.5 ^h
Silver City ^e (Ida.)	6400	2/26	39	10.0	18.7	13.8 ^h
Silvies	6900	2/23	24	7.2	12.4	- -
South Mountain #2 (Ida.)	6340	2/25	21	5.3	12.6	10.6
Stag Mountain ^e (Nev.)	7800	3/1	12	2.6	6.2	- -
Stinking Water	4800	2/24	8	2.1	- -	3.7 ^h
Succor Creek ^e (Ida.)	6100	3/1	18	4.3	5.7	- -
Taylor Canyon (Nev.)	6200	2/25	20	5.4	4.4	4.6
Toe Jam ^e (Nev.)	7700	3/1	30	7.5	6.5	- -
Tremewan Ranch (Nev.)	5700	2/25	12	3.0	T	1.4
Triangle ^e (Ida.)	5150	3/1	1	0.2	T	0.7 ^h
Trout Creek ^e	7800	3/2	20	5.8 ^j	9.2	- -
"V" Lake ^e	6600	3/2	13	3.8 ^j	3.7	- -
Vaught Ranch ^e (Ida.)	5950	3/1	12	2.9	- -	- -
War Eagle ^e (Ida.)	7700	3/1	60	14.4	- -	- -



WATER SUPPLY OUTLOOK BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in Baker, Union and Wallowa Counties continues to be only fair except for those situations where stored water supplies are available--there the outlook is good.

SNOW COVER

Water content of the mountain snowpack increased slightly over the whole area and is now 82 percent of the 15-year average for March 1 but only 58 percent of last year on this date. Snow on the Burnt River watershed is now 85 percent average, on the Powder 78 percent, the Wallowa 77 percent and the main Grande Ronde 86 percent.

SOIL MOISTURE

Moisture in the top four feet of the soil mantle under the snowpack increased slightly to 70 percent of capacity compared with 87 percent a year ago. These soils will absorb from 5 to 6 inches of snowmelt water when spring runoff begins.

RESERVOIR STORAGE

Stored water supplies are well above average. Unity now holds 13,600 acre feet compared with 18,600 acre feet last year and a March 1 average of 9,400 acre feet. Wallowa Lake contains 31,900 acre feet compared with 29,300 acre feet last year and an average of 18,000 acre feet.

STREAMFLOW

Spring and summer streamflow forecasts range from 61 percent of the 15-year average (1948-62) on Burnt River to 84 percent average on the Lostine River. Powder River is forecast to flow 69 percent of average and the Grande Ronde 63 percent average April through September.

Water supplies for irrigation in northeastern Oregon will probably be less in total amount and will be available for a shorter period of time except where stored water is available.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Alder Slope	Average	Fair
Baker Valley	Fair	Fair
Big Creek	Fair	Fair
Clover Cr. (nr. N. Powder)	Fair	Fair
Cove	Fair	Fair
Durkee	Fair	Fair
Eagle Valley	Fair	Fair
Elgin	Fair	Fair
Enterprise-Joseph	Average	Average
Hereford-Bridgeport	Average	Average
Imnaha River	Average	Fair
La Grande-Island City	Fair	Fair
Lostine-Wallowa	Average	Fair
No. Powder River-Wolf Cr.	Fair	Fair
Pine Valley	Fair	Fair
Powder River-Elk Creek	Fair	Fair
Summerville	Fair	Fair
Sumpter Valley	Fair	Fair
Union-Hot Lake	Average	Fair
Unity	Fair	Fair

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Unity	25.2	13.6	18.6	9.4
Wallowa Lake	37.5	31.9	29.3	18.0

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1 1966

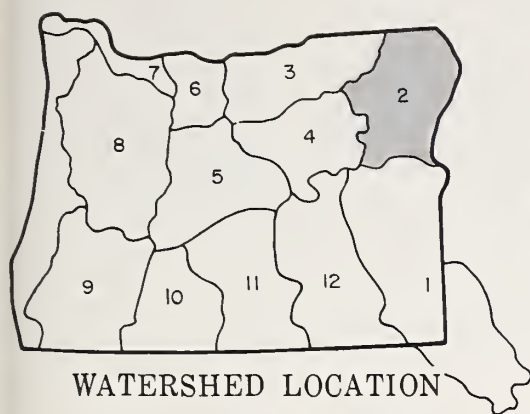
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3305	Bear near Wallowa	56	April-Sept.	72	78
2730	Burnt near Hereford ^d	33	March-June	49	67
		25	April-Sept.	41	61
3200	Catherine near Union	55	April-Sept.	73	75
3190	Grande Ronde at La Grande	167	March-July	242	69
		127	April-Sept.	203	63
3295	Hurricane near Joseph	37	April-Sept.	48	77
2920	Imnaha at Imnaha	250	April-Sept.	318	79
3300	Lostine near Lostine	110	April-Sept.	131	84
2755	Powder near Baker	45	April-July	66	68
		46	April-Sept.	67	69
3250	Wallowa, East Fork near Joseph ^d	11.0	March-Sept.	12.7	87
		10.0	April-Sept.	12.0	83

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Blue Mountain Summit	5100	36	16.8	2-25-66	9.2	14.5	9.6
Emigrant Springs	3925	48	22.3	2-25-66	16.5	21.0	20.3
Tollgate	5070	48	23.6	2-28-66	17.9	19.0	19.2

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE,
IMNAHA WATERSHEDS



LEGEND

-  Watershed Boundary
-  Sub-watershed Boundary
-  Soil Conservation District Boundary
-  County Boundary
-  Forecast Point
-  Snow Course
-  Soil Moisture Station
-  Aerial Snow Depth Gage
-  Precipitation Gage

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Aneroid Lake #1	7480	3/1	78	26.6	48.0	32.4
Aneroid Lake #2	7300	3/1	69	23.6	41.0	29.2
Anthony Lake	7125	2/28	56	18.0	38.9	23.6
Anthony Ski Hill		2/26	63	20.7	- -	- -
Bald Mountain ^e (Ore.)	6700	3/1	36	10.8 ^j	25.9	- -
Barney Creek	5950	2/28	29	7.9	13.3	7.5
Beaver Reservoir	5340	2/24	31	8.5	11.9	10.1
Big Sheep ^e	6200	3/1	60	20.4 ^j	31.1	- -
Blue Mountain Summit	5098	2/25	28	7.7	11.1	8.3
Bourne	5800	2/24	41	11.6	22.2	15.8
County Line	4800	2/28	27	7.8	8.8	7.0 ^h
Dooley Mountain	5430	2/21	18	4.5	11.6	8.6
Eilertson Meadows	5400	2/23	37	10.4	14.9	10.8 ^h
Eldorado Pass	4600	2/25	15	3.6	1.8	3.0 ^h
Gold Center	5340	2/24	40	10.4	14.6	12.5
Goodrich Lake	6775	3/2	77	27.4	- -	32.0 ^h
Intake House	4930	2/23	39	9.8	14.0	- -
Little Alps	6200	2/28	39	10.5	17.8	- -
Little Antone	5000	2/28	25	6.3	- -	- -
Lucky Strike	5050	2/26	38	10.6	17.5	11.8 ^h
Meacham	4300	2/25	44	12.2	13.5	9.1
Mirror Lake	8200	3/1	105	41.0	78.1	- -
Moss Spring	5850	3/1	52	14.0	27.8	21.9
Power Plant	3990	2/23	22	4.9	9.0	- -
Schneider Meadows	5400	2/24	60	17.5	33.3	29.2 ^h
Schoolmarm	4775	2/28	25	7.4	6.4	5.9 ^h
Standley ^e	7400	3/1	50	15.0	31.0	- -
Taylor Green	5740	3/1	40	10.8	20.7	- -
Tipton	5100	2/25	30	8.5	12.3	10.0 ^h
Tollgate	5070	2/28	68	20.3	26.4	25.1
TV Ridge	7000	3/1	36	10.8	22.2	- -

"The Conservation of Water begins with the Snow Survey"



WATER SUPPLY OUTLOOK UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies for Umatilla and Walla Walla watersheds has improved a little but is still somewhat below average. Stored water supplies are below average but snow cover is amazingly improved and moisture in the soil mantle under the snow is just fair.

SNOW COVER

Water content of the mountain snowpack is up to 98 percent of the 15-year average (1948-62) on Walla Walla watersheds and equal to last year. However, this snow is distributed unevenly with heavier than usual amounts below 4500 feet elevation and below average amounts at higher elevations.

The snowpack on Umatilla watersheds is 104 percent of average but only 86 percent of last year. Here again, the high snow is "short" and the low snow is heavy.

SOIL MOISTURE

Soil moisture in the upper watersheds averages 77 percent of capacity in the top four feet of the soil profile. This is about 10 percent less than last year and is only fair. A fair amount of early snowmelt water will be absorbed by the soil mantle.

RESERVOIR STORAGE

Stored water supplies in McKay reservoir are currently only 28,100 acre feet compared with 59,000 acre feet a year ago and the March 1 average of 41,000. Forecasted inflow to the reservoir from March 1 through July is 46,000 acre feet but snowmelt and runoff conditions will have to be favorable.

Cold Springs reservoir now holds 36,400 acre feet compared with 41,800 acre feet last year. However, the average storage on March 1 is 39,900 acre feet and flow of the Umatilla River is expected to be near average.

STREAMFLOW

Streamflow next spring and summer (April through September) is forecast at 83 percent average on the Walla Walla, South Fork; 96 percent average on Umatilla at Pendleton; 88 percent average on McKay Creek. The flow of Butter Creek, March through July, is forecast at 93 percent average.

Flow of smaller streams heading in lower elevations is expected to be close to average or slightly better because of heavier than average low-elevation snow.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Birch Creek	Average	Average
Butter Creek	Average	Average
Couse Creek	Average	Average
Dry Creek	Average	Average
Dugger Creek	Average	Average
Johnson Creek	Average	Average
McKay Creek	Average	Average
Mill Creek	Average	Average
Mud Creek	Average	Average
Pine Creek	Average	Average
Rhea Creek	Average	Average
Rock Creek	Average	Average
Umatilla R. (Cold Springs Reservoir)	Average	Average
Umatilla River, Main	Average	Average
Umatilla River (McKay Res.)	Average	Average
Walla Walla River, Little	Average	Average
Walla Walla River, Main	Average	Average
Walla Walla River, No. Fk.	Average	Average
Walla Walla River, So. Fk.	Average	Average
Willow Creek	Average	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cold Springs	50.0	36.4	41.8	39.9
McKay	73.8	28.1	59.0	41.0

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ^t
NO.	NAME				
0320	Butter Creek near Pine City	13.5	March-July	14.5	93
0225	McKay near Pilot Rock	46	March-July	49	94
		28	April-Sept.	32	88
0200	Umatilla near Gibbon	114	March-Sept.	116	98
		90	April-Sept.	93	97
0210	Umatilla at Pendleton	240	March-Sept.	247	97
		175	April-Sept.	183	96
0100	Walla Walla, South Fork near Milton	78	March-Sept.	89	88
		63	April-Sept.	76	83

SOIL MOISTURE

SOIL MOISTURE		PROFILE (Inches)		SOIL MOISTURE (Inches)			
STATION		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Athena-Weston	1700	48	18.7	2-28-66	14.4	14.0	13.3
Battle Mountain Summit	4340	48	13.8	2-25-66	11.8	13.8	12.7
Emigrant Springs	3925	48	22.3	2-25-66	16.5	21.0	20.3
Tollgate	5070	48	23.6	2-28-66	17.9	19.0	19.2

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Arbuckle Mountain	5400	2/28	39	12.2	14.7	10.9 ^h
Battle Mountain Summit	4340	2/25	11	3.2	2.5	2.4 ^m
Blue Mountain Camp	4300	2/28	51	14.6	15.6	- -
Emigrant Springs	3925	2/25	31	9.4	5.3	6.2
Lucky Strike	5050	2/26	38	10.6	17.5	11.8 ^h
Meacham	4300	2/25	44	12.2	13.5	9.1
Tollgate	5070	2/28	68	20.3	26.4	25.1
Walla Walla Diversion	2400	2/24	18	7.0	0.0	2.8 ^h
Weston Mountain	2700	2/28	1	0.1	0.0	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

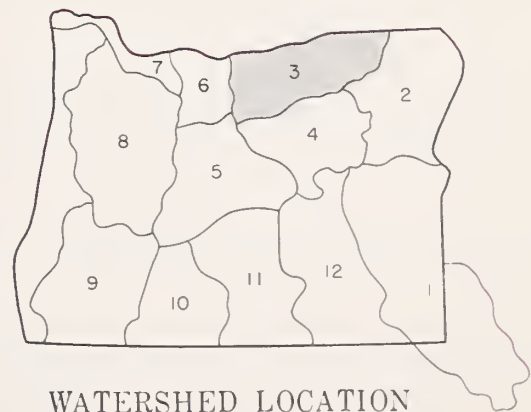
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

10 0 10 20 30
SCALE IN MILES



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ▶ Soil Moisture Station
- └─┐ Precipitation Gage





WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in the John Day country continues to be dim with flow of all streams expected to be about one-third less than average.

SNOW COVER

Water content of the mountain snowpack increased less than expected during February but brought relatively more snow to lower elevations than to the higher elevation snow courses. Total snow cover is still only two-thirds of last year on March 1.

SOIL MOISTURE

Moisture in the top four feet of the soil mantle under the snowpack is still only 68 percent of capacity compared with 92 percent last year on this date. These soils will absorb a minimum of 2 to 4 inches of snowmelt water when spring runoff begins.

STREAMFLOW

Streamflow next spring and summer is forecast at 69 percent of the 15-year average (1948-62) for the John Day, Middle Fork at Ritter and the John Day at Prairie City. Flow of Strawberry Creek near Prairie City is expected to be 70 percent average.

Flow of many smaller streams heading in lower elevations is now expected to be somewhat better than average due to heavier than average low-elevation snowpacks.

Flow of the John Day River, as measured at Service Creek*, has averaged only 19 percent normal during February and only 38 percent normal from last October 1 to March 1.

* Preliminary data from U. S. Geological Survey, Portland, Oregon.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.)

March 1, 1966

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Beech Creek	Average	Fair
Beech Creek-Fox-Long Cr.	Average	Fair
Bridge-Mountain Creeks	Average	Average
Camas Creek	Average	Average
Indian-Pine Creeks	Average	Fair
John Day River, Main Fork	Average	Fair
John Day River, Mid. Fork	Average	Fair
John Day River, No. Fork	Average	Fair
John Day River, So. Fork	Average	Fair
Monument-Kimberly	Average	Average
Strawberry Creek	Average	Fair

[illegible]

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

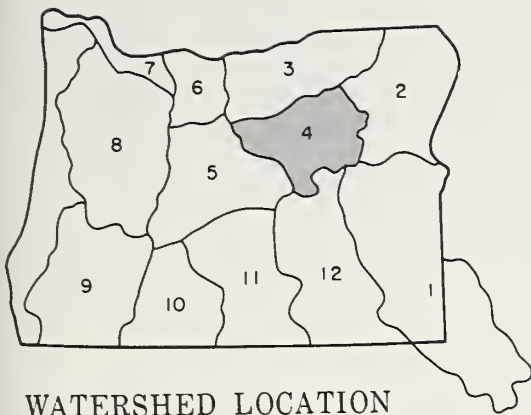
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
NO.	NAME				
0385	John Day at Prairie City	40	March-July	56	71
		35	April-Sept.	51	69
0440	John Day, Middle Fork at Ritter	110	March-July	153	72
		90	April-Sept.	131	69
0375	Strawberry near Prairie City	6.0	March-July	8.2	73
		6.2	April-Sept.	8.8	70

SOIL MOISTURE

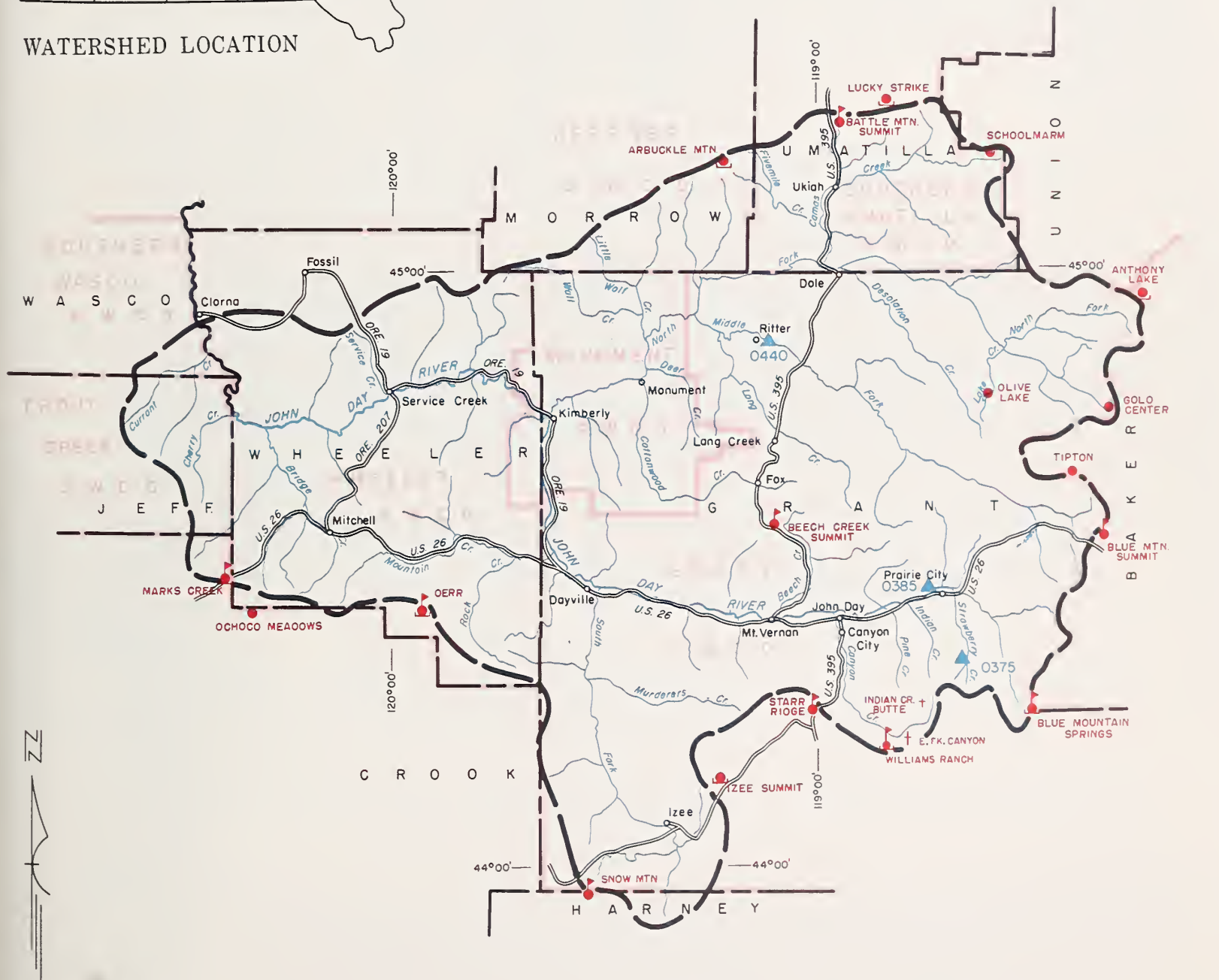
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Battle Mountain Summit	4340	48	13.8	2-25-66	11.8	13.8	12.7
Blue Mountain Springs	5900	42	16.9	2-28-66	7.0	12.6	7.4
Blue Mountain Summit	5100	36	16.8	2-25-66	9.2	14.5	9.6
Derr	5670	24	9.0	2-27-66	6.9	8.9	- -
Marks Creek	4540	36	14.1	2-28-66	11.6	13.7	9.2
Snow Mountain	6300	48	16.7	2-24-66	12.2	16.5	12.3
Starr Ridge	5150	36	10.6	2-25-66	7.9	10.4	8.3

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.


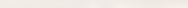
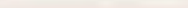






UPPER JOHN DAY WATERSHEDS



WATERSHED LOCATION



LEGEND

- | | |
|---|----------------------------------|
|  | Watershed Boundary |
|  | Sub-watershed Boundary |
|  | Soil Conservation District Bdry. |
|  | County Boundary |
|  | Forecast Point |
|  | Snow Course |
|  | Soil Moisture Station |
|  | Aerial Snow Depth Gage |
|  | Precipitation Gage |

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1948-62 AVERAGE
NAME	ELEVATION					
Anthony Lake	7125	2/28	56	18.0	38.9	23.6
Arbuckle Mountain	5400	2/28	39	12.2	14.7	10.9 ^h
Battle Mountain Summit	4340	2/25	11	3.2	2.5	2.4 ^m
Beech Creek Summit	4800	2/28	20	5.4	4.9	5.6
Blue Mountain Springs	5900	2/28	33	9.6	21.9	15.8
Blue Mountain Summit	5098	2/25	28	7.7	11.1	8.3
Derr	5670	2/27	33	9.7	15.2	9.6 ^h
East Fork Canyon ^e	5700	3/1	30	8.4	15.2	- -
Gold Center	5340	2/24	40	10.4	14.6	12.5
Indian Creek Butte ^e	6550	3/1	54	15.1	31.1	- -
Izee Summit	5293	2/24	28	7.5	8.5	8.0
Lucky Strike	5050	2/26	38	10.6	17.5	11.8 ^h
Marks Creek	4540	2/28	23	6.8	2.5	3.7
Ochoco Meadows	5200	2/26	36	10.6	9.2	10.1
Olive Lake	6000	2/25	49	14.3	27.5	18.3
Schoolmarm	4775	2/28	25	7.4	6.4	5.9 ^h
Snow Mountain	6300	2/24	36	9.9	16.6	- -
Starr Ridge	5150	2/24	18	4.7	8.0	5.6
Tipton	5100	2/25	30	8.5	12.3	10.0 ^h
Williams Ranch	4500	2/24	8	3.0	0.0	- -

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK UPPER DESCHUTES, CROOKED WATERSHEDS OREGON

as of

MARCH 1, 1966



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in Crook and Deschutes Counties has improved slightly to a near average situation for most water users. Stored water supplies are very good.

SNOW COVER

Water content of the mountain snowpack is 118 percent average on Crooked River watersheds and 103 percent average on the Deschutes and still about 10 percent less than the heavy snow cover of last year.

The present snowpack is much above average in the lower elevations and near average or slightly below at the high elevations. This condition will probably result in larger than average volumes of water in the spring freshets but is not likely to extend the summer runoff to any great degree.

SOIL MOISTURE

Moisture in the soil mantle under the snowpack is only 77 percent of capacity on the Crooked watershed and far below the 98 percent measured last year. These soils will absorb a minimum of 2 to 3 inches of snowmelt water when runoff begins.

RESERVOIR

Stored water supplies are very good with total storage on the Deschutes 110 percent of the average for March 1 and 103 percent average on the Crooked River. Ochoco and Prineville Reservoirs now hold 24,200 and 96,000 acre feet, respectively.

On the Deschutes River, Crane Prairie and Wickiup Reservoirs hold 47,100 and 190,300 acre feet, respectively, while Crescent Lake holds 62,400 acre feet.

STREAMFLOW

Flow of Crooked River, March through July, is forecast at 139,000 acre feet or 82 percent of the 15-year average (1948-62), and inflow to Ochoco Reservoir is forecast at 36,000 acre feet or 86 percent for the same period.

The Little Deschutes is forecast at 90,000 acre feet or 80 percent average April through September, and the flow of the Deschutes at Benham Falls is estimated to be 515,000 acre feet or 82 percent average for this same period.

Squaw and Tumalo Creeks are forecast at 53,000 acre feet and 51,000 acre feet, respectively, or 95 and 94 percent of the average.

Report prepared by
W. T. FROST AND BOB L. WHALEY
U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Arnold Irrigation District	Average	Average
Bear Creek	Average	Average
Beaver Creek	Average	Average
Camp Creek	Average	Average
Central Ore. Irrig. Dist.	Average	Average
Crooked River	Average	Average
Deschutes River	Average	Fair
Hay-Trout Creeks	Average	Average
Lone Pine Irrig. Dist.	Average	Average
Mill Creek	Average	Average
North Unit Irrig. Dist.	Average	Fair
Ochoco Creek	Average	Average
Sisters Irrigation Dist.	Average	Average
Snow Creek Irrig. Dist.	Average	Average
Squaw Creek Irrig. Dist.	Average	Average
Swalley Ditch	Excellent	Excellent
Tumalo Project	Average	Average
Walker Basin Irrig. Dist.	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.)

March 1, 1966

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Crane Prairie	55.3	47.1	57.3	45.3
Crescent Lake	117.2*	62.4	70.2	51.1
Ochoco	47.5	24.2	32.9	26.6
Prineville	153.0	96.0	106.8	- -
Wickiup	200.0	190.3	187.5	176.9

*Includes space for 25,790 a.f. for flood storage only.

Note: Storage figures for Crescent Lake include 5,360 a.f. of known dead and inactive storage.

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.)

as of March 1, 1966

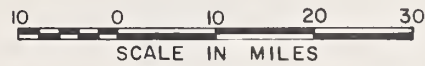
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
0535	Crane Prairie Reservoir total Inflow	92	March-July	108	85
		120	April-Sept.	143	84
0600	Crescent at Crescent Lake ^d	25	March-July	30	83
		27	April-Sept.	33	82
0795	Crooked near Post	139	March-July	169	82
		98	April-Sept.	125	78
0645	Deschutes at Benham Falls ^d	350	April-July	417	84
		515	April-Sept.	631	82
0500	Deschutes below Snow Creek	70	March-Sept.	82	85
		63	April-Sept.	75	84
0630	Deschutes, Little near Lapine ^d	99	March-July	115	86
		90	April-Sept.	113	80
0848	Ochoco Reservoir net Inflow	36	March-July	42	86
		26	April-Sept.	32	81
0555	Odell near Crescent	28	April-Sept.	34	82
0750	Squaw near Sisters	53	April-Sept.	56	95
0730	Tumalo near Bend ^d	51	April-Sept.	54	94

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Derr	5670	24	9.0	2-27-66	6.9	8.9	- -
Marks Creek	4540	36	14.1	2-28-66	11.6	13.7	9.2
Snow Mountain	6300	48	16.7	2-24-66	12.2	16.5	12.3

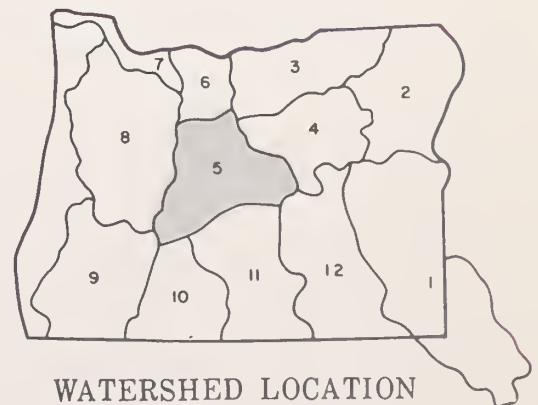
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- ▲ Forecast Point
- Snow Course
- ▼ Soil Moisture Station
- ⊥ Precipitation Gage



Upper Deschutes, Crooked Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Black Pine Spring	4600	2/21	19	6.6	0.0	5.0 ^h
Caldwell Ranch	4400	2/23	33	11.5	10.1	- -
Cascade Summit	4880	2/23	81	28.2	33.4	28.9
Chemult	4760	2/25	38	12.6	11.4	11.4
Deer Creek	4554	2/23	54	17.1	21.7	- -
Derr	5670	2/27	33	9.7	15.2	9.6 ^h
Fire Road	5050	2/22	25	7.3	10.4	6.5 ^h
Hogg Pass	4755	2/25	111	43.8	42.3	39.4
Hungry Flat	4400	3/1	25	9.7	0.0	6.3 ^h
Irish Taylor	5500	2/23	88	30.3	40.8	- -
Marks Creek	4540	2/28	23	6.8	2.5	3.7
Mowich	4700	2/26	22	8.7	2.2	5.4 ^h
New Crescent Lake	4800	2/24	46	14.4	14.6	15.7 ^h
New Dutchman Flat #2	6400	3/1	120	46.3	61.2	46.8
Ochoco Meadows	5200	2/26	36	10.6	9.2	10.1
Paulina Lake	6330	2/22	48	16.5	28.5	18.7 ^h
Paulina Prairie	4285	2/22	14	5.4	0.0	1.1 ^h
Snow Mountain	6300	2/24	36	9.9	16.6	- -
Tamarack	4800	2/28	24	7.4	5.8	5.8
Tangent	5400	3/1	66	24.1	26.8	22.1 ^h
Three Creeks Butte	5200	2/21	35	12.9	12.0	11.5 ^h
Three Creeks Meadows	5650	2/21	54	18.5	20.3	19.9
Waldo Lake	5500	2/24	72	22.8	33.2	- -
Willamette Pass	5600	2/25	102	36.3	40.9	37.7 ^h
Windigo Pass	5800	2/26	97	35.2	49.1	39.3 ^h

"The Conservation of Water begins with the Snow Survey"



WATER SUPPLY OUTLOOK HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in the Hood River-Wasco County area has improved and good average water supplies are now foreseen for all streams.

SNOW COVER

Water content of the mountain snowpack is 108 percent of the 15-year average on Hood River watersheds, 122 percent average on White River and 132 percent average on the Mile Creeks.

SOIL MOISTURE

Moisture in the top four feet of the soil mantle under the snowpack is reported to be about average. Therefore, no unusually large amounts of snowmelt water will be required to prime the watersheds for runoff.

RESERVOIR STORAGE

Stored water supplies are still rather scanty but will increase rapidly when snowmelt begins. Clear Lake (Wasco Lake) reservoir is reported to have 1,700 acre feet in storage now.

STREAMFLOW

Spring and summer streamflow is forecast at 98 percent of the 15-year average (1948-62) for Hood River near the mouth and for the West Fork near Dee.

For the same period (April through September) White River is forecast at 102 percent of the average. Flows of the tributaries, Rock, Gate, Threemile, Badger and Tygh Creeks are expected to be average or slightly better because low-elevation snow is better than usual.

Flow of the Mile Creeks, Mill and Mosier Creeks should also be better than usual. The snowpack at Brooks Meadow is already heavier than it usually is on April 1.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Aldridge Ditch (Tony Creek)	Average	Average
Badger Creek	Average	Average
Dee Irrigation District	Average	Average
East Fork Irrig. Dist.	Average	Average
Farmers Irrigation Dist.	Average	Average
Hood River Irrig. Dist.	Average	Average
Juniper Flat	Average	Average
Middle Fork Irrig. Dist.	Average	Average
Mile Creeks	Average	Average
Mill Creek	Average	Average
Mount Hood Irrig. Dist.	Average	Average
Rock-Gate-Threemile Crs.	Average	Average
Tygh Creek	Average	Average
White River	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	11.9	1.7	6.0	- -

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
1210	Hood near Hood River ^d	320	April-July	322	99
		375	April-Sept.	381	98
1185	Hood, West Fork near Dee	150	April-July	155	97
		175	April-Sept.	179	98
1015	White below Tygh Valley	165	April-July	158	104
		180	April-Sept.	176	102

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Brooks Meadows	4300	3/1	56	19.2	8.4	- -
Clear Lake	3500	2/28	44	17.1	11.5	11.9
Clear Lake (experimental)	3500	2/28	61	21.2	19.0	8.3 ^m
Cooper Spur	3490	2/28	37	16.1	- -	- -
Greenpoint Reservoir	3400	2/26	58	24.0	19.9	15.1 ^h
Knebal Springs	3850	3/1	36	- -	8.8	- -
Lambert Point	7000	Not surveyed				
Parkdale	1770	2/28	T	T	- -	- -
Phlox Point	5600	2/25	143	56.1	59.0	57.1
Red Hill	4400	2/28	116	42.0	37.7	40.4
Still Creek	3700	2/28	77	28.2	23.1	23.0
Switchback	3255	3/2	67	22.8	10.9	- -
Tilly Jane	6000	2/20	103	38.7	43.8	38.7
Ulrich Ranch Junction	3350	Not surveyed				
Umbrella Falls	5400	Not surveyed				
Upper Valley	2530	2/28	23	9.3	- -	- -

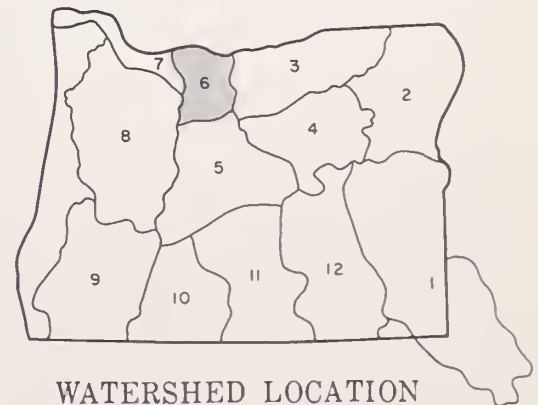
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- ▼ Soil Moisture Station
- ⌈ Precipitation Gage



Hood, Mile Creeks, Lower Deschutes Watersheds

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK LOWER COLUMBIA WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

As of March 1, water supply outlook in the Columbia Basin remains good for both irrigation and power after the snowmelt season. Streamflow during the winter months has been deficient resulting in heavy demands on storage along the Columbia main stems. Streamflow forecasts over the basin are in the range of 70 to 100 percent of average. Slightly less is expected on the Owyhee, Malheur, Burnt and Grande Ronde in eastern Oregon. Carryover storage for irrigation is well above average except for Yakima where storage is near average and complete filling is expected during the snowmelt season.

SNOW COVER

Seasonal snow accumulation to date is near average in the Upper Columbia and about 80 percent of average on the Snake River and its tributaries in Idaho. Snowpack substantially in excess of average exists on the Lewis River watershed in Washington and on the Willamette, Rogue and Umpqua in Oregon. The greatest deficiency is on the Upper Clark Fork and Bitterroot drainages in Montana and on the Owyhee and Malheur in Oregon.

SOIL MOISTURE

Soil moisture tends to be near average over the basin at both mountain and valley elevations except for the Idaho area where soils are wetter than usual and on the headwaters of the Powder, Burnt, John Day, Blitzen and Goose Lake drainages in Oregon where soil moisture is clearly below average.

STREAMFLOW

The flow of the Columbia at The Dalles, Oregon has been below average during the winter months reflecting general streamflow conditions over the basin. Flow was particularly low in February. The record by months for The Dalles* is as follows:

<u>Month</u>	<u>Percent of Average Discharge (1948-62)</u>
October	93 (Adjusted for storage)
November	95 " " "
December	87 " " "
January	92 " " "
February	70 " " "

*Preliminary data furnished by Current Records Center, U. S. Geological Survey, Portland, Oregon.

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
1057	Columbia at The Dalles ^d	71,000 103 500	April-June April-Sept.	74,100 108,500	96 95

HISTORICAL DATA (Columbia River at The Dalles)

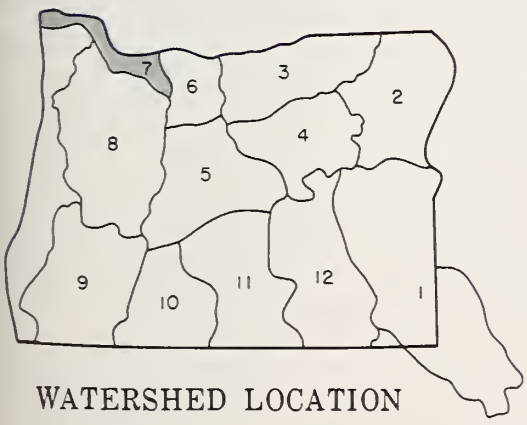
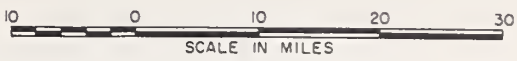
YEAR	STREAMFLOW ^d (1,000 A.F.)			PEAK (1,000 c.f.s.)	DATE
	APR. — SEPT.	APR. — JUNE	MAY — JUNE		
1943	115,000	75,300	52,400	541	June 21
1944	61,900	39,200	32,100	326	June 19
1945	81,600	54,600	47,300	505	June 8
1946	108,100	75,400	59,600	581	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,400	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105,700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1948-62 Avg.	108,500	74,100	60,200	633	
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

LOWER COLUMBIA WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- 50 River Miles
- Snow Course

COLUMBIA RIVER BASIN



"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK WILLAMETTE WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in Willamette Valley is adequate in spite of a very dry February which brought less than half of the expected snowfall contribution.

SNOW COVER

Water content of the mountain snowpack totals about 129 percent of the 15-year average (1948-62) for March 1. Low-elevation snow, between about 2200 and 4500 feet, is much above average for this date while high elevation snow, above about 5000 feet, is a little below the average. This unusual distribution of snow is likely to result in larger than average volumes of water in the spring freshet, but it is not likely to extend the summer runoff to any great degree.

SOIL MOISTURE

Moisture in the top four feet of the soil mantle under the snowpack is close to the average. Lower-elevation soils are generally wetter and approach water holding capacity.

RESERVOIR STORAGE

Water held in multi-purpose reservoirs on the Willamette is below the average amounts largely because midwinter streamflow has been much below average. These reservoirs can pick up water rapidly as snowmelt begins.

STREAMFLOW

Spring and summer streamflow (April through September) is forecast to range from a low of 90 percent of the 15-year average (1948-62) on the South Santiam to a high of 106 percent average on Oak Grove Fork of the Clackamas. Other tributaries lie between these amounts.

Total flow of the Willamette at Salem is forecast at 96 percent average.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

STREAM or AREA	FLOW PERIOD		RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
	SPRING SEASON	LATE SEASON			THIS YEAR	LAST YEAR	1948-62 AVERAGE
Calapooya	Average	Average	Cottage Grove	30.0*	7.6	7.8	9.6
Clackamas	Average	Average	Cougar	155.2*	16.6	25.9	- -
McKenzie	Average	Average	Detroit	299.9*	24.0	108.5	97.3 ^m
Molalla	Average	Average	Dorena	70.5*	17.2	17.4	21.1
Santiam, North	Average	Average	Fall Creek	115.0*	31.1	- -	- -
Santiam, South	Average	Average	Fern Ridge	94.2*	31.4	26.6	37.2
Willamette, Coast Fork	Average	Average	Hills Creek	200.0*	24.8	67.9	- -
Willamette, Middle Fork	Average	Average	Lookout Point	337.2*	23.7	103.0	101.9 ^m
			Timothy Lake	61.7	23.0	61.7	43.1 ^m
			*Multiple purpose reservoir--space reserved primarily for flood runoff.				

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
2080	Clackamas at Big Bottom	170	April-July	150	113
		200	April-Sept.	184	109
2100	Clackamas at Estacada	870	April-July	770	113
		970	April-Sept.	890	109
2095	Clackamas above Three Lynx	635	April-July	584	109
		730	April-Sept.	683	107
1590	McKenzie at McKenzie Bridge	480	April-July	502	96
		625	April-Sept.	658	95
1625	McKenzie near Vida	1070	April-July	1144	94
		1300	April-Sept.	1392	93
2090	Oak Grove Fork above Power Intake	165	April-July	147	112
		205	April-Sept.	190	108
1545	Row near Dorena	116	April-July	108	107
		121	April-Sept.	112	108
1830	Santiam, North at Mehama ^d	855	April-July	884	97
		955	April-Sept.	991	97
1875	Santiam, South at Waterloo	610	April-July	637	96
		640	April-Sept.	675	95
1480	Willamette Mid. Fk. blw. N. Fk. nr. Oakridge	820	April-July	863	95
		920	April-Sept.	968	95
1910	Willamette at Salem ^d	4700	April-July	5040	93
		5250	April-Sept.	5566	94

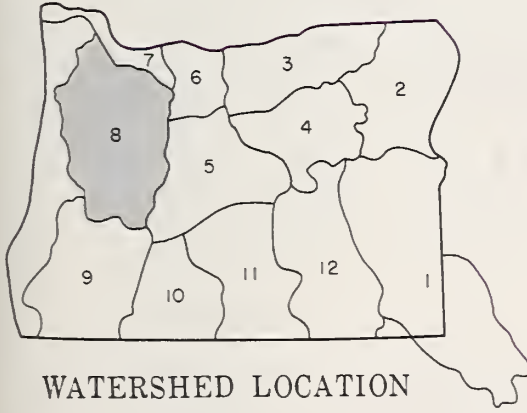
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ⚡ Radio Telemetry

10 0 10 20 30
SCALE IN MILES



SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Big Bottom	2118	3/1	28	9.4	2.4	6.4 ^h
Cascade Summit	4880	2/23	81	28.2	33.4	28.9
Champion	4500	3/1	108	38.8	28.7	24.7
Clackamas Lake	3400	3/1	48	16.8	14.2	12.7
Clear Lake	3500	2/28	44	17.1	11.5	11.9
Clear Lake (experimental)	3500	2/28	61	21.2 _j	19.0	8.3 ^m
Dead Horse Grade	3800	3/3	72	24.5 _j	19.0	19.3 ^h
Detroit Town	1610	2/25	0	0.0	0.0	1.8 ^h
Detroit Dam	1580	2/25	0	0.0	0.0	0.7 ^h
Golden Curry Creek	3136	3/1	46	16.8	5.2	5.9 ^h
Hogg Pass	4755	2/25	111	43.8	42.3	39.4
Lake Harriet	2045	Not surveyed				
Layng Creek	1200	3/1	T	T	0.0	0.0 ^m
Lost Creek Ranch	1956	3/3	25	9.1 _j	3.3	3.0 ^h
Lund Park	1740	3/1	4	0.6	0.0	1.0 ^h
Marion Forks	2730	2/25	49	18.8	10.5	14.5 ^m
Marys Peak	3620	2/27	60	25.0	12.2	7.0 ^m
McCredie Springs	2120	2/23	0	0.0	0.0	0.7 ^h
McKenzie	4800	3/3	122	39.8 _j	46.4	41.6 ^h
McKenzie Bridge	1372	3/3	0	0.0 _j	0.0	1.2 ^h
Meridian Dam	750	2/23	0	0.0	0.0	0.0 ^h
Mill City	826	2/25	0	0.0	0.0	0.0 ^m
Oakridge	1310	2/23	0	0.0	0.0	T ^h
Peavine Ridge	3500	3/1	70	25.5	- -	17.4 ^h
Phlox Point	5600	2/25	143	56.1	59.0	57.1
Railroad Overpass	2750	2/23	22	10.1	0.0	3.7 ^h
Salt Creek Falls	4000	2/23	61	23.3	20.5	15.5 ^h
Santiam Junction	3990	2/25	77	30.3	22.6	23.4
Still Creek	3700	2/28	77	28.2	23.1	23.0
Timothy Lake	3295	Not surveyed				
Vida	800	3/3	0	0.0 _j	0.0	0.0 ^h
Waldo Lake	5500	2/24	72	22.8	33.2	- -
Weaver Creek	2440	3/1	6	1.4 _j	0.0	2.0 ^h
White Branch Slide	2800	3/3	41	13.7 _j	6.6	6.4 ^h
Whitewater Bridge	2175	2/25	27	10.6	5.7	6.1 ^h
Willamette Pass	5600	2/25	102	36.3	40.9	37.7 ^h

RADIO REPORTS BY AUTOMATIC SNOW-MEASURING STATIONS

			Time			
Peavine Ridge	3500	3/1	8:46	21.7	- -	- -
Phlox Point	5600	3/1	8:28	50.4	- -	- -

"The Conservation of Water begins with the Snow Survey"



WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in the Umpqua and Rogue basins is exceptionally good with 12 out of 31 snow courses reporting snow already deeper than the maximum usually measured on April first.

SNOW COVER

Water content of the mountain snowpack is about 119 percent of the 15-year average (1948-62) on the Umpqua and 121 percent average on the Rogue. Watersheds of the Applegate and Illinois Rivers in the western Rogue country already have a snowpack about equalling the 1956 pack. The high elevations are close to an average pack but seem to have missed the heavy snowstorms that dumped at lower elevations.

SOIL MOISTURE

The top four feet of the soil mantle on upper watersheds under the snowpack contains about average moisture.

RESERVOIR STORAGE

Stored water supplies in reservoirs of the Talent Irrigation District are 111 percent of the average for March 1 and totals 77,600 acre feet compared with 106,700 acre feet last year.

Water stored in reservoirs of the Medford and Rogue Valley Irrigation Districts is estimated, from observations about February 1, at 117 percent of the average and totals an estimated 16,700 acre feet compared with 21,200 acre feet last year.

STREAMFLOW

Spring and summer streamflow of the Umpqua below Lemolo Reservoir is forecast at 190,000 acre feet or 102 percent of the 15-year average (1948-62). Clearwater Reservoir below Trap Creek is forecast at 80,000 or 106 percent average.

Flow of the Rogue above Prospect is forecast at 360,000 acre feet or 101 percent average, April through September. The Rogue below South Fork is forecast at 755,000 acre feet or 100 percent average. At Raygold, the Rogue is forecast to flow 1,000,000 acre feet or 100 percent of the 15-year average.

The Applegate near Copper is forecast at 185,000 acre feet or 130 percent average and the Illinois at Kerby is estimated to flow 265,000 acre feet or 125 percent average.

Report prepared by
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WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Althouse Creek	Excellent	Excellent
Applegate River, Big	Excellent	Excellent
Applegate River, Little	Excellent	Excellent
Ashland Creek	Excellent	Excellent
Butte Creek, Little	Average	Average
Butte Creek, Big	Average	Average
Cow Creek	Excellent	Average
Deer Creek	Excellent	Average
Elk Creek	Excellent	Average
Emigrant Creek (abv. Res.)	Excellent	Average
Evans Creek	Excellent	Average
Gold Hill Irrigation Dist.	Average	Average
Grants Pass Irrig. Dist.	Average	Average
Grave Creek	Excellent	Average
Illinois River, East Fork	Excellent	Excellent
Illinois River, West Fork	Excellent	Excellent
Jump-off Joe Creek	Excellent	Average
Neil Creek	Excellent	Excellent
Red Blanket Creek	Excellent	Average
Rogue River	Average	Average
Sucker Creek	Excellent	Excellent
Table Rock Irrig. Dist.	Average	Average
Thompson Creek	Excellent	Excellent
Wagner Creek	Excellent	Average
Williams Creek	Excellent	Excellent

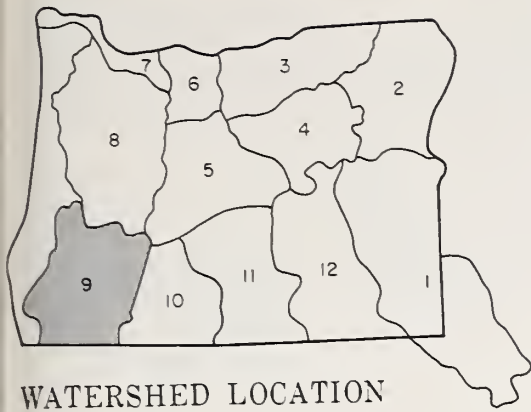
RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Emigrant Gap	39.0	27.0	30.2	26.8*
Fish Lake	7.8	b	7.9	5.4
Fourmile Lake	16.1	b	13.3	8.9
Howard Prairie	60.0	39.6	60.6	- -
Hyatt Prairie	16.1	11.0	15.9	8.1
*Average for years of record after reconstruction.				

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
3620	Applegate near Copper	185	April-Sept.	142	130
3145	Clearwater above Trap Creek ^d	80	April-Sept.	75	106
5045	Fourmile Lake net Inflow ^d	7.3	March-Sept.	6.8	107
		6.6	April-Sept.	6.6	100
5140	Hyatt Reservoir net Inflow ^d	7.0	April-Sept.	6.4	109
3770	Illinois River at Kerby	440	March-July	348	126
		265	April-Sept.	212	125
3425	Little Butte, N. Fk. at Fish Lk. nr. Lake Cr. ^d	*	April-Sept.	16.0	
3415	Little Butte, So. Fk. nr. Lake Creek	*	April-July	38	
	Note: Minimum flow will drop to 100 c.f.s. by *.				
3280	Rogue above Prospect	300	April-July	295	102
		360	April-Sept.	355	101
3320	Rogue, South Fork near Prospect ^d	70	April-July	70	100
		81	April-Sept.	82	99
3350	Rogue River below South Fork	617	April-July	611	101
		755	April-Sept.	754	100
3590	Rogue at Raygold near Central Point	850	April-July	837	102
		1000	April-Sept.	1001	100
3615	Rogue at Grants Pass	995	April-Sept.	993	100
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls ^d	190	April-Sept.	186	102
	*No snow surveys at Fish Lake.				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

ROGUE, UMPQUA WATERSHEDS



10 0 10 20 30
SCALE IN MILES



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- ▲ Forecast Point
- Snow Course
- L Precipitation Gage

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Althouse	4530	2/25	57	23.2	6.5	6.2
Annie Spring	6018	2/25	106	40.6	47.6	39.8
Beaver Dam Creek	5100	2/25	46	16.2	10.4	- -
Big Red Mountain	6500	2/25	85	33.2	26.0	28.2
Billie Creek Divide	5300	3/1	59	19.1	21.5	22.1
Champion	4500	3/1	108	38.8	28.7	24.7
Cold Springs Camp	6100	2/23	76	26.2	41.2	- -
Deadwood Junction	4600	2/25	36	11.7	6.7	- -
Diamond Crater Summit	5800	2/25	90	31.1	41.8	- -
Diamond Lake	5315	2/25	69	24.0	23.3	21.9
Eden Valley Summit	2390	3/1	20	10.8	- -	- -
Fish Lake	4865	b				
Fourmile Lake	6000	b				
Grayback Peak	6000	2/24	97	41.7	26.1	25.8
Howard Prairie	4500	2/25	33	10.8	7.2	- -
Hyatt Prairie Reservoir	4900	2/25	31	10.9	7.3	8.7 ^h
King Mountain #1	4800	b				
King Mountain #2	3646	b				
King Mountain #3	2550	b				
King Mountain #4	1779	b				
Little Red Mountain	6500	2/26	77	31.6	21.6	22.3
North Umpqua	4215	2/25	50	18.5	15.6	12.6 ^h
Page Mountain	4045	2/25	41	17.0	1.6	5.4 ^h
Park Headquarters	6450	2/25	127	49.5	76.4	50.3
Red Butte #1	4560	b				
Red Butte #2	4000	2/25	48	20.0	4.0	- -
Red Butte #3	3500	2/25	50	20.6	- -	- -
Red Butte #4	3000	2/25	16	7.5	T	- -
Red Butte #5	2500	2/25	0	0.0	0.0	- -
Red Butte #6	2000	2/25	0	0.0	0.0	- -
Seven Lakes #1	6800	3/1	132	47.1	64.5	51.5
Seven Lakes #2	6200	2/28	101	34.3	45.1	37.2 ^h
Silver Burn	3720	2/27	57	20.1	11.8	13.1
Siskiyou Summit	4630	2/27	36	15.2	3.2	6.9
South Fork Canal	3500	2/27	24	9.2	0.0	2.7
Trap Creek	3800	2/25	42	16.7	13.1	10.7 ^h
Whaleback	5140	2/28	97	34.9	32.3	31.7
Windigo Pass	5800	2/26	97	35.2	49.1	39.3 ^h

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

as of

MARCH 1, 1966



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in Klamath Basin has dimmed slightly, due to a relatively dry February, but remains close to average. Stored water supplies are adequate for irrigation, although possibly somewhat deficient for usual hydro-power generation.

SNOW COVER

Water content of the mountain snowpack on March 1 is about 98 percent of the 15-year average (1948-62) on watersheds of Upper Klamath Lake. Lost River watersheds have a snowpack totaling 126 percent of average.

SOIL MOISTURE

Moisture in the top four feet of the soil mantle under the snowpack is reported to be about average and some frost still remains in the soil.

RESERVOIR STORAGE

Stored water in Gerber Reservoir totals 51,980 acre feet on March 1 compared with the 15-year average of 39,900 acre feet and a total of 71,000 acre feet last year. Clear Lake Reservoir contains 221,320 acre feet compared with the average of 207,400 acre feet and a total of 271,800 acre feet last year.

Upper Klamath Lake contains 327,960 acre feet compared with the average of 410,600 acre feet and a total of 483,800 acre feet last year. The expected inflow to this and other Klamath reservoirs will be adequate to provide full irrigation supplies.

STREAMFLOW

Spring and summer streamflow in Klamath Basin is forecast at 540,000 acre feet or 84 percent of the 15-year average (1948-62) for Upper Klamath Lake. The Sprague and Williamson Rivers are forecast at 81 and 87 percent average, respectively.

Inflow to Gerber Reservoir is forecast at 32,000 acre feet or 85 percent average March through June. Clear Lake should receive about 67,000 acre feet or 88 percent average inflow in the same four months.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair", "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Ft. Klamath Valley	Average	Average
Lost River (Clear Lake)	Average	Average
Lost River (Gerber)	Average	Average
Lost River (Willow Res.)	Average	Average
Sprague River	Average	Average
Upper Klamath Lake	Average	Average
Williamson River	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	440.2	221.3	271.8	207.4
Gerber	94.0	52.0	71.0	39.9 ^m
Upper Klamath Lake	584.0	328.0	483.8	410.6

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

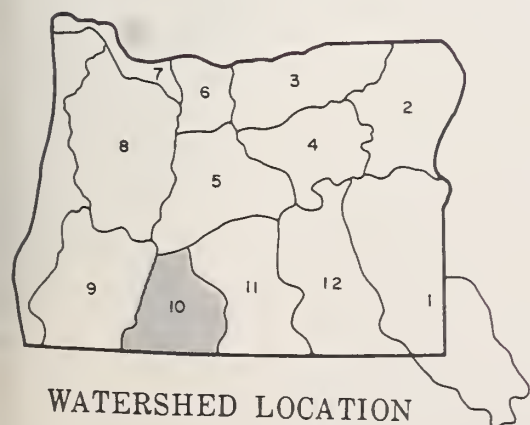
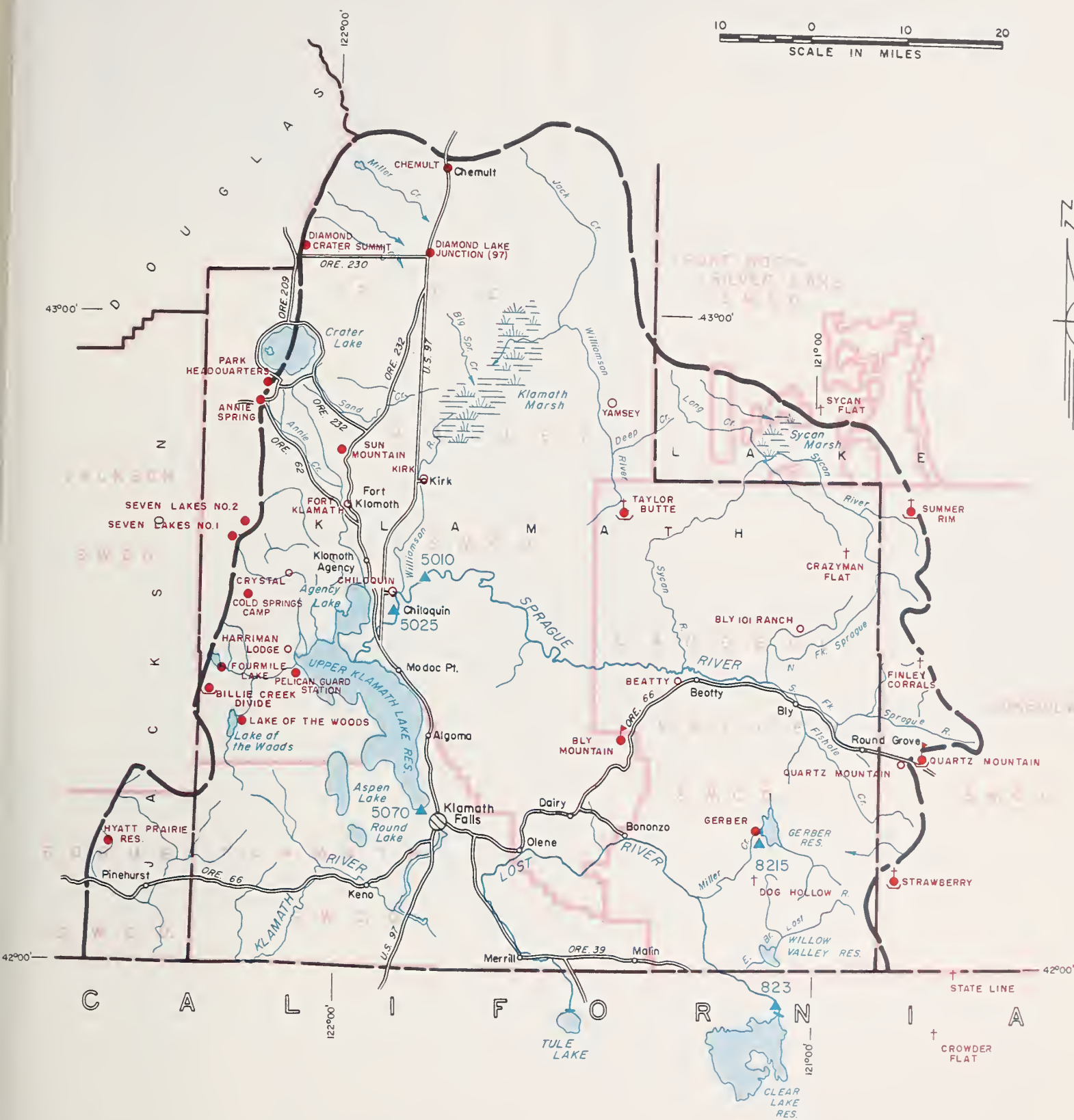
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
823	Clear Lake Reservoir Inflow ^k	67	March-June	76	88
8215	Gerber Reservoir Inflow ^k	32	March-June	38	85
5010	Sprague near Chiloquin	230	March-June	292	79
		235	April-Sept.	289	81
5070	Upper Klamath Lake net Inflow ^k	537	March-June	671	80
		540	April-Sept.	639	84
5025	Williamson below Sprague River	405	March-June	477	85
		425	April-Sept.	490	87

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Bly Mountain	5090	42	14.0	b			

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS



LEGEND

-
- Watershed Boundary
 Sub-watershed Boundary
 Soil Conservation District Bdry
 County Boundary
 Forecast Point
 Snow Course
 Aerial Snow Depth Gage
 COPCO Snow Station
 Soil Moisture Station
 Precipitation Gage

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Annie Spring	6018	2/25	106	40.6	47.6	39.8
Beatty (PP&L)	4300	<i>b</i>				
Billie Creek Divide	5300	3/1	59	19.1	21.5	22.1
Bly Mountain	5090	3/3	29	8.4	3.2	4.8 ^m
Bly 101 Ranch (PP&L)	4800	3/1	10	2.0	0.0	1.0
Chemult	4760	2/25	38	12.6	11.4	11.4
Chiloquin (PP&L)	4187	2/28	4	2.0	0.0	0.9
Cold Springs Camp	6100	2/23	76	26.2	41.2	- -
Crazyman Flat ^e	6100	2/26	30	8.4	9.0	8.5 ^m
Crowder Flat ^e (Calif.)	5200	2/26	14	3.9	1.7	2.2 ^m
Crystal (PP&L)	4200	2/26	30	9.1	6.2	9.7
Diamond-Crater Summit	5800	2/25	90	31.1	41.8	- -
Diamond Lake Junction (97)	4600	2/24	28	8.8	5.2	- -
Dog Hollow ^e	4900	2/26	3	0.8	T	0.1 ^m
Finley Corrals ^e	6000	2/26	36	10.1	18.5	14.0 ^m
Fort Klamath (PP&L)	4150	2/26	17	6.4	2.8	3.3
Fourmile Lake	6000	<i>c</i>				
Gerber	4850	2/28	9	3.6	T	2.2 ^h
Harriman (PP&L)	4200	2/28	15	5.4	0.9	2.9 ^m
Hyatt Prairie Reservoir	4900	2/25	31	10.9	7.3	8.7 ^h
Kirk (PP&L)	4533	2/28	34	9.4	3.3	5.7
Lake of the Woods	4960	2/26	37	11.2	9.6	11.8
Park Headquarters	6450	2/25	127	49.5	76.4	50.3
Pelican Guard Station	4150	3/1	15	5.1	1.3	- -
Quartz Mountain	5320	2/28	26	8.2	4.8	6.2
Quartz Mountain (PP&L)	5504	2/28	29	9.2	6.3	6.3
Seven Lakes #1	6800	3/1	132	47.1	64.5	51.5 ^h
Seven Lakes #2	6200	2/28	101	34.3	45.1	37.2 ^h
State Line ^e (Calif.)	5750	2/26	30	8.4	5.2	8.9 ^m
Strawberry	5760	2/23	30	7.8	5.8	7.9 ^h
Summer Rim	7200	2/28	45	12.8	19.4	14.8
Sun Mountain	5350	2/24	62	20.0	23.4	23.9
Sycan Flat ^e	5500	2/26	24	6.7	7.3	6.1 ^m
Taylor Butte	5100	2/28	19	5.5	3.6	6.2 ^h
Yamsey (PP&L)	4600	<i>b</i>				

WATER SUPPLY OUTLOOK LAKE COUNTY, GOOSE LAKE WATERSHEDS OREGON

as of

MARCH 1, 1966

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in Lake County has dimmed slightly to below average for lands without stored water. Stored water supplies are good but moisture in the soils under the snowpack is below average and is expected to reduce runoff.

SNOW COVER

Water content of the mountain snowpack failed to increase at average rates during February and is now 91 percent of the 15-year average (1948-62) and 88 percent of the snowpack a year ago. Only much above average snow accumulation in March can improve the present outlook.

SOIL MOISTURE

Moisture in the soil mantle under the mountain snowpack is only 61 percent of capacity compared with 80 percent last year. Weather has been too cold to permit midwinter recharge of the watersheds.

RESERVOIR STORAGE

Stored water in Cottonwood and Drews Valley reservoirs totals 43,000 acre feet which is slightly greater than the 15-year average of the 40,400 acre feet. Last year these two reservoirs held 68,900 acre feet on March 1. Inflow to these reservoirs this spring will be a little less than average but will be sufficient for 1966 water supplies.

STREAMFLOW

Streamflow between now and the end of June, 1966 is forecast at 65 and 67 percent of the average (1948-62) on Twentymile and Honey Creeks. Deep Creek is forecast at 77 percent average for the same four months. Warner Valley will have only fair water supplies--probably just a bit less than the supplies of 1964.

Chewaucan River is forecast at 84 percent March through June. Inflow to Drews Valley reservoir is forecast at 40,000 acre feet or 85 percent of the average for the March through July period.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.)

March 1, 1966

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Chewaucan	Average	Average
Crooked Creek	Fair	Fair
Deep Creek	Average	Fair
Dry Creek	Average	Fair
East Side Goose Lake	Fair	Fair
Guano Lake	Fair	Fair
Honey Creek	Fair	Fair
Lakeview Water Users Assn.	Average	Average
Rock Creek (Hart Mtn.)	Fair	Fair
Silver-Buck Creeks	Average	Average
Summer Lake	Average	Fair
Thomas Creek	Average	Fair
Twentymile Creek	Fair	Fair
Warner Lakes	Fair	Fair

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottonwood	8.7	0.9	7.1	3.1*
Drews	63.0	42.1	61.8	37.3
*Average for years of record after reconstruction.				

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
3840	Chewaucan near Paisley	75	March-June	89	84
3715	Deep above Adel	60	March-June	78	77
3385	Drews Reservoir net Inflow	40	March-July	47	85
3785	Honey near Plush	12.0	March-June	18.0	67
3660	Twentymile near Adel	18.2	March-June	28	65

SOIL MOISTURE

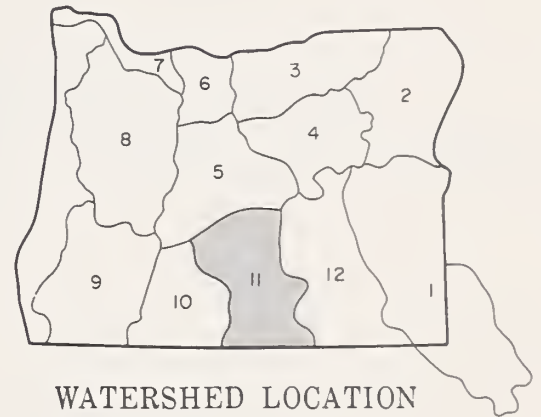
SOIL MOISTURE		PROFILE (Inches)		SOIL MOISTURE (Inches)			
STATION		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Camas Creek	5720	42	14.5	2-25-66	11.4	13.4	12.7
Quartz Mountain	5320	48	15.3	2-28-66	6.8	10.3	8.4

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Bald Mountain (Nev.)	6720	2/23	13	2.7	2.4	3.5
Bear Flat Meadow ^e	5900	2/26	26	7.3	8.8	9.8 ^m
Camas Creek	5720	2/25	32	9.6	8.2	11.2
Colvin Creek ^e	6550	2/26	18	5.2	-	-
Cox Flat ^e	5750	2/26	26	7.3	9.5	6.5 ^m
Crane Mountain ^e	6020	2/26	8	2.3	0.4	5.1 ^m
Crowder Flat ^e (Calif.)	5200	2/26	14	3.9	1.7	2.2 ^m
Dismal Swamp ^e (Calif.)	7000	2/26	36	10.4	18.0	15.8 ^m
Finley Corrals ^e	6000	2/26	36	10.1	18.5	14.0 ^m
Hart Mountain ^e	6350	2/26	8	2.3	0.8	2.0 ^m
Little Bally Mountain ^e (Nev.)	6600	2/26	11	3.2	1.2	-
Mill Creek	6200	2/25	24	6.6	9.8	8.3
Patton Meadows ^e	6800	2/26	37	10.4	21.9	-
Quartz Mountain (PP&L)	5504	2/28	29	9.2	6.3	6.3
Quartz Mountain	5320	2/28	26	8.2	4.8	6.2
Sherman Valley ^e	6600	2/26	30	8.7	12.0	11.1 ^m
Silver Creek	4900	2/28	15	4.8	1.3	3.5
State Line ^e (Calif.)	5750	2/26	30	8.4	5.2	8.9 ^m
Strawberry	5760	2/23	30	7.8	5.8	7.9 ^h
Summer Rim	7200	2/28	45	13.6	19.4	14.8
Sycan Flat ^e	5500	2/26	24	6.7	7.3	6.1 ^m

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- COPCO Snow Station
- ▶ Soil Moisture Station
- ┌ Precipitation Gage

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

as of

MARCH 1, 1966



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The outlook for spring and summer water supplies in Harney County continues dim with the spring runoff expected to be much below average and late season water supplies very poor. Winter precipitation and snowfall have been much below average resulting in a deficient snowpack and relatively dry soil moisture conditions.

SNOW COVER

Water content of the mountain snowpack is 72 percent of the March 1 average in the north half of the basin and about 77 percent in the south. Remaining winter storms can make up for the present shortage of snow but the probabilities of this happening are very remote.

SOIL MOISTURE

Moisture in the top four feet of the soils under the snowpack is dissappointingly short--72 percent of capacity in the north and 69 percent in the south. Considerable frost remains in the ground over wide areas as a result of continued cold weather. Small reservoirs have not received the usual inflow from mid-winter snowmelt.

STREAMFLOW

Streamflow between March 1 and July 31 is forecast at 64 percent of the 15-year average (1948-62) on the Silvies River and 68 percent on Silver Creek.

In south Harney, the Blitzen is forecast at 66 percent of average and Trout Creek near Denio at 75 percent average for the same period.

Report prepared by

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U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Catlow Valley	Fair	Fair
Cow Creek	Fair	Poor
Donner und Blitzen River	Fair	Poor
Mill-Coffeepot Creeks	Fair	Poor
Rattlesnake Creek	Fair	Poor
Silver Creek	Fair	Poor
Silvies River	Fair	Poor
Soldier-Prather Creek	Fair	Poor
Trout Creek	Fair	Poor
Whitehorse Creek	Fair	Poor

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1966

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1966

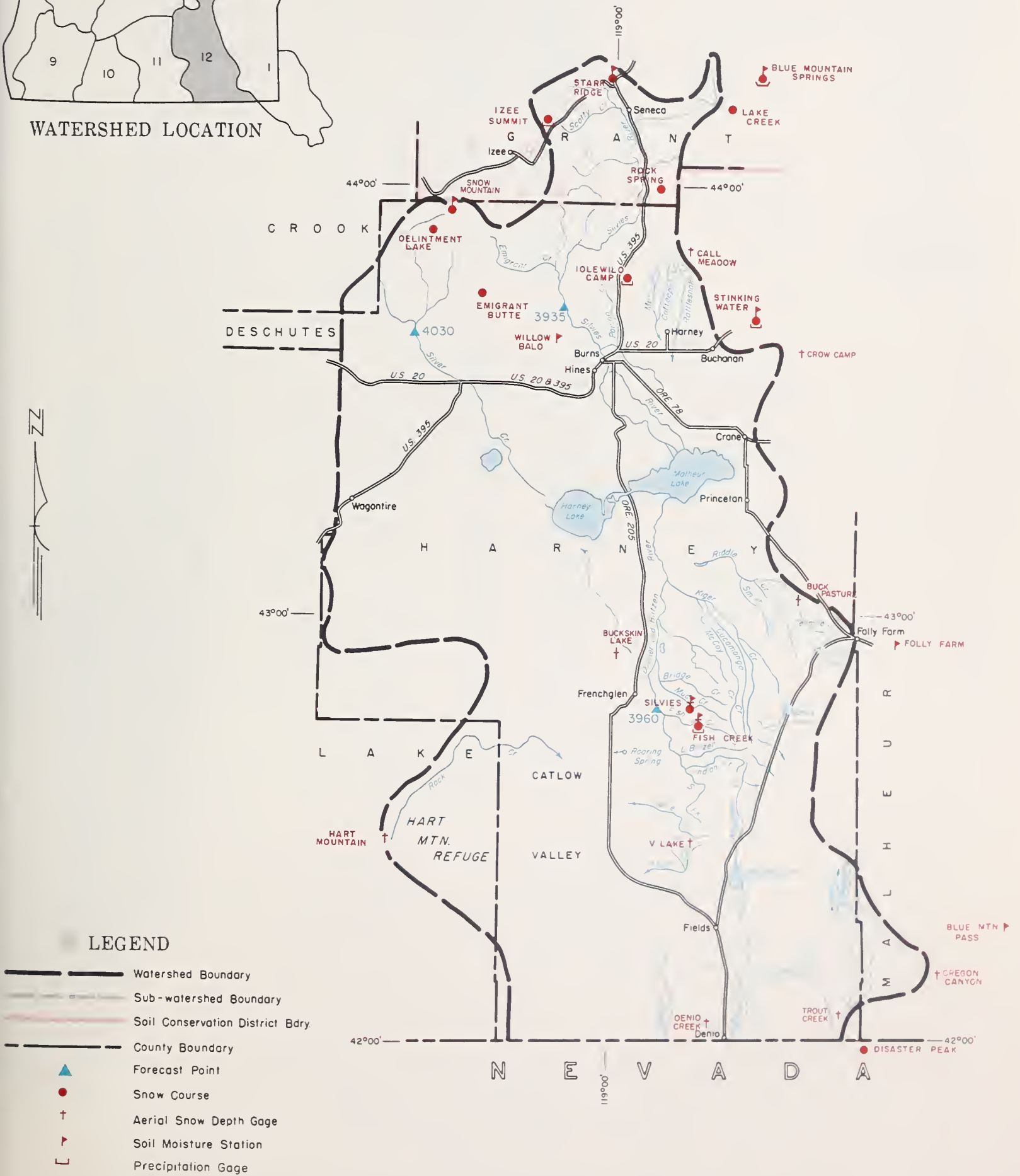
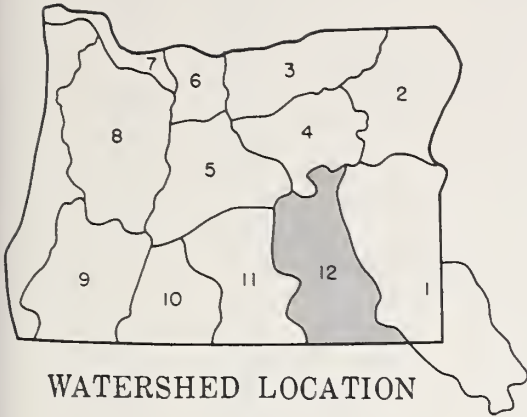
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
3960	Donner und Blitzen near Frenchglen	39	March-June	59	66
		40	April-Sept.	62	64
4030	Silver near Riley	15.0	March-July	27	68
3935	Silvies near Burns	74	March-June	116	64
		60	April-Sept.	99	61
4065	Trout near Denio	6.5	March-July	8.7	75
		6.0	April-Sept.	8.4	71

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Blue Mountain Springs	5900	42	16.9	2-28-66	7.0	12.6	7.4
Fish Creek	7900	48	15.0	2-23-66	10.3	- -	9.0
Folly Farm	4450	30	12.5	b			
Silvies	6900	48	16.4	2-23-66	11.5	12.7	10.1
Snow Mountain	6300	48	16.7	2-24-66	12.2	16.5	12.3
Starr Ridge	5150	36	10.6	2-25-66	7.9	10.4	8.3
Stinking Water Summit	4800	48	21.9	2-24-66	21.4	- -	- -
Willow-Bald	5000	24	6.6	2-24-66	3.8	6.5	5.3

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HARNEY BASIN WATERSHEDS



Harney Basin Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Blue Mountain Springs	5900	2/28	33	9.6	21.9	15.8
Buck Pasture ^e	5700	3/2	9	2.7 ^j	0.0	- -
Buckskin Lake ^e	5200	3/2	3	0.9 ^j	0.0	- -
Call Meadows ^e	5340	3/2	13	3.4 ^j	1.4	- -
Crow Camp ^e	5500	3/2	4	1.0 ^j	0.0	- -
Delintment Lake	5600	2/24	26	6.6	8.2	- -
Denio Creek ^e	6000	3/2	6	1.7 ^j	0.0	- -
Disaster Peak (Nev.)	6500	2/28	33	10.5	12.3	14.6 ^h
Emigrant Butte	5000	2/24	17	4.7	4.2	- -
Fish Creek	7900	2/23	48	14.8	33.0	- -
Hart Mountain ^e	6350	2/26	8	2.3	0.8	2.0 ^m
Idlewild Camp	5200	2/28	19	4.5	4.9	5.4
Izee Summit	5293	2/24	28	7.5	8.5	8.0
Lake Creek	5120	2/25	23	6.1	12.8	10.5
Oregon Canyon ^e	6950	3/2	13	3.8 ^j	3.7	- -
Rock Spring	5100	2/28	20	5.1	5.7	5.6
Silvies	6900	2/23	24	7.2	12.4	- -
Snow Mountain	6300	2/24	36	9.9	16.6	- -
Starr Ridge	5150	2/24	18	4.7	8.0	5.6
Stinking Water	4800	2/24	8	2.1	- -	3.7 ^h
Trout Creek ^e	7800	3/2	20	5.8 ^j	9.2	- -
"V" Lake ^e	6600	3/2	13	3.8 ^j	3.7	- -

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The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - Weather Bureau
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
 - National Park Service
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

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*"The Conservation of Water begins
with the Snow Survey"*